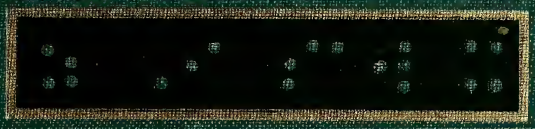

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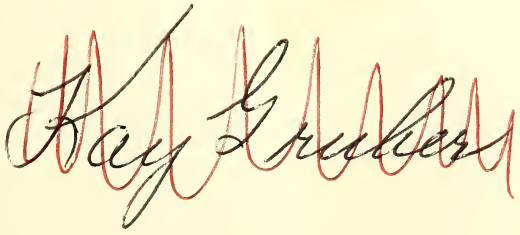

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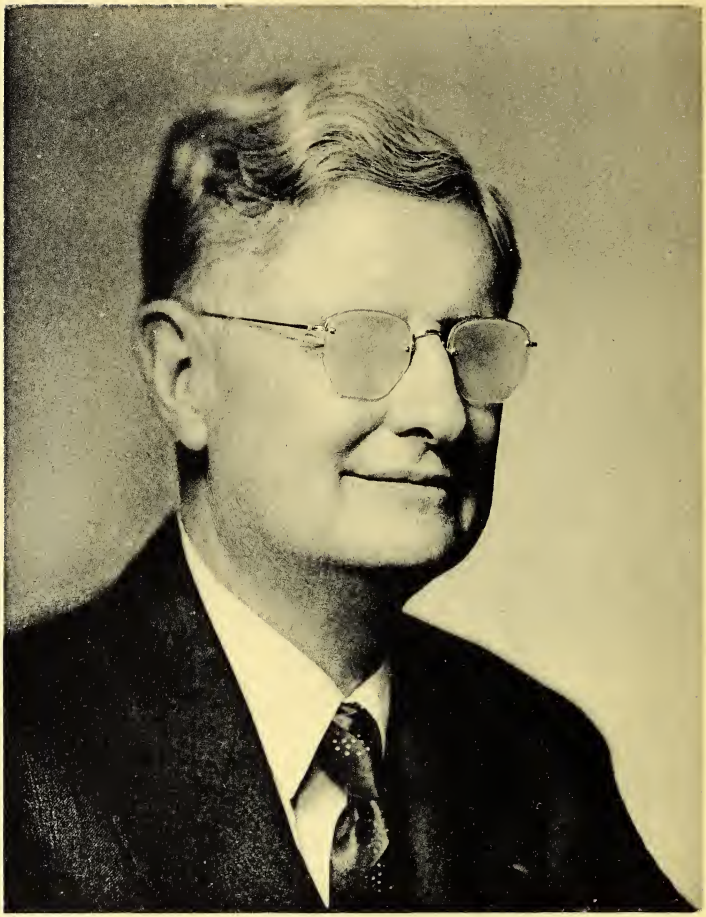

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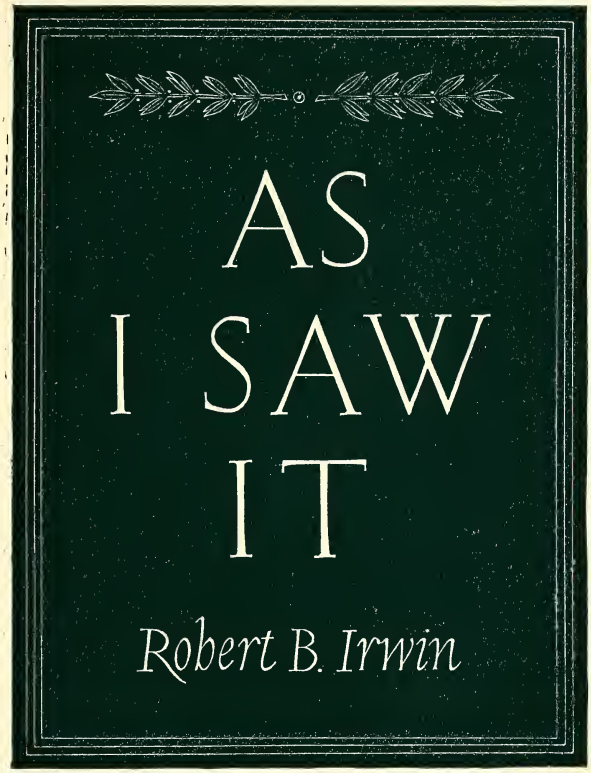

FOREWORD BY

MAJOR M. C. MIGEL

1955

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FOREWORD

THIS small volume has been published by the American Foundation for the Blind with a dual purpose—to honor the memory of Dr. Robert B. Irwin and the splendid work which he accomplished—and to present a picture of some phases of work for the blind and of the activities of the American Foundation for the Blind.

I have been requested to write a Foreword in view of my very close association and collaboration with Dr. Irwin, a remarkably fine, outstandingly able man, and an unusual character.

It happens that for twenty-three years I was President of the American Foundation for the Blind, of which Dr. Irwin was Director of Research and Education from 1923 to 1929 and Executive Director from the year 1929 to his retirement.

I distinctly remember a meeting in 1923 in Overbrook, Pennsylvania when the engagement of Dr. Irwin was under consideration at a board meeting. One of the trustees of the American Foundation for the Blind at that time, charming Miss Prudence Sherwin of Cleveland, who was acquainted with Dr. Irwin and his fine work in Cleveland, informed us that if we engaged him, he would have to have at least two secretaries to keep up with his labors. I remember remarking that we were not in position then to grant him this, whereupon Miss Sherwin said, "Don't worry, he will secure what he thinks he should have."

Miss Sherwin then told us that when Dr. Irwin came to Cleveland some years previously, he fell in love with a beautiful sighted girl, who had many admirers and everyone discouraged him from pressing his suit, feeling that she would not accept. "However," continued Miss Sherwin, "he would not be dissuaded, and they have been married for some time now."

As to secretaries, he certainly required and had two or three assistants long before the time he retired.

In the fifty years or more of my experience in work for the blind, and throughout my close contact with workers in the field, including many blind people, I would say that Dr. Irwin and his achievements were outstanding and will occupy a tremendously important niche in the history of work for the blind.

He was a persevering and indefatigable worker, and when he once decided on a certain procedure, he never swerved from his course until he had arrived at a successful issue.

Dr. Irwin spent himself in planning and furthering one idea after another for the benefit of his fellow blind—conservation of sight, education, gainful employment, financial assistance, legislation, etc. He exhausted his abundant energies in ceaseless and untiring labors for the blind.

Some of his contemplated projects at first seemed fantastic dreams, but diligently pursued by Dr. Irwin and brought to fruition, they ultimately proved of inestimable value. Such a project was the Talking Book, which proved to be one of the greatest blessings bestowed upon the blind in the last century, and as important in their lives as the system originated by Louis Braille. This is especially so as in recent years blindness has been

most prevalent among the aged, who have lost finger-sensitivity and find it difficult and often impossible to learn to read braille.

The Talking Book is only one of the many projects which Dr. Irwin envisioned and in the development of which he was of tremendous assistance.

It was Dr. Irwin's idea that a blind person and guide should be enabled to travel for one single fare on railroads and buses. To bring this about involved a great deal of labor, negotiations with the Interstate Commerce Commission, the federal authorities in Washington, and with the various transportation lines, many of them with regional centers scattered throughout the country. But after years of unremitting effort on the part of Dr. Irwin, an arrangement was finally effectuated and has been in operation for many years, enabling thousands of blind persons and their guides to travel for a single fare.

Dr. Irwin conceived the idea of suggesting to Congress that all the federal departments purchase from workshops for the blind such of their supplies as are made by the blind, at a fair market price. He appeared at many hearings in Washington, and finally, to consummate this plan, Congress passed the Wagner-O'Day Act, thus creating a tremendous amount of gainful employment for the blind. Blind-made products of the value of some millions of dollars have been sold to the government in several years.

Dr. Irwin planned and directed the World Conference on Work for the Blind, which was held in New York City in 1931, and attended by delegates from forty-six countries throughout the world. He was also Chairman of the Organizing Committee for the International Con-

ference of Workers for the Blind in Oxford, England in 1949.

Although totally blind, Dr. Irwin traveled alone extensively, by air and by rail, and he seemed physically inexhaustible. He had a keen sense of humor, which helped him and us through occasional difficult and troubled waters.

He had set his heart on writing, after his retirement, a history of work for the blind, which he planned to call *Fifty Years of Progress*, in which he had, indeed, played a tremendously important part. Unfortunately, after writing the ten chapters contained in this brief volume, he was suddenly stricken and called to the Great Beyond, so that the book which he contemplated was not completed.

These chapters are published in his memory and as a slight tribute to the magnificent projects which he envisioned and brought to fruition for the benefit of his fellow-blind. In view of the fact that the book was not finished, it seemed fitting to change the title, which Dr. Irwin had chosen, to *As I Saw It*.

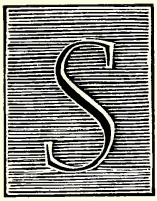
M. C. Migel, *Chairman of the Board*
AMERICAN FOUNDATION FOR THE BLIND

THE WAR OF THE DOTS

The long struggle to achieve a uniform type for the blind will be remembered by anyone who was active in work for the blind in the final years of the nineteenth century and the first three decades of the twentieth. At the height of the struggle, one outstanding educator of the blind, Dr. Olin H. Burritt, said of the situation, "The conflict was acrimonious in the extreme. The bitterness can hardly be imagined."

Dr. Irwin, although too young to be involved in the first violent battles, was a spectator watching and waiting for his turn. He soon became an active participant in the deliberations, and finally, he was in the forefront among the American delegation that successfully brought about the establishment of Standard English braille for all English-speaking countries in London in 1932.

These developments made Dr. Irwin feel that his history of work for the blind must begin with the story of the development of a uniform type for the blind, even though his plans for the book had certain limitations as to the period of time to be covered.



OCIAL WORKERS often complain that blind people are a difficult lot to deal with. When one considers how cheerfully most of them have adjusted themselves within the span of a single lifetime to such changes in their reading codes as from Boston linetype to New York Point, New York Point to American braille, American braille to Revised braille grade 1½, and finally from grade 1½ to grade 2, it must be admitted that sweet reasonableness must characterize a large percentage of finger readers. What an outcry would be heard in this country if the seeing public had been forced to make a similar series of accommodations!

While it is not the purpose of this book to go into history of work for the blind much before 1900, some account of the origin of types for the blind in the United States will not be out of place.

The founders of schools for the blind in this country turned to Europe for special appliances and special methods. In the early 1830's when the three mother schools for the blind were founded in Boston, New York and Philadelphia, the common type in official use on the other side of the Atlantic was embossed Roman letters more or less simplified to make them more tangible. Their virtue as compared with arbitrary codes seemed to be that they could be read by sight by the seeing teachers with no special instruction. Furthermore, it was contended that the blind people, by using a type similar to that of

their seeing associates, were set less apart from the rest of the world.

While Louis Braille had already published an exposition of his dot system in 1829, it had no official standing anywhere and it is not clear that our earliest American pioneers knew anything about this code. However, in 1860, Dr. Simon Pollak, a member of the Board of the Missouri School for the Blind, who had observed the system in use in Europe, brought it back to America with him and caused it to be officially adopted by this school.

In the early 1860's William Bell Wait, then a teacher and superintendent of the New York Institution for the Blind, as it was then called, realized that a considerable portion of blind children had great difficulty in learning to read embossed Roman letters and a still higher percentage of those blinded in adult life could not learn to read it at all. Accordingly, he turned his attention to the promotion of some dot code that would be more tangible. In Philadelphia, Roman letters printed with dotted lines were being used to some extent, but it was not practical for blind people to write embossed Roman letters whether smooth or dotted.

Mr. Wait writes that he first asked the heads of schools for the blind in Boston and Philadelphia to join him in supplanting the Roman letters with Braille's code which was in use at the Missouri School for the Blind in St. Louis. As he received no encouragement from his colleagues he turned his attention to the perfecting of a dot code which he felt would be even superior to braille and published it in 1868.

This system, New York Point, was endorsed and recommended for use in the schools for the blind in the

United States at the meeting of the American Association of Instructors of the Blind in 1871.

The braille system consists of arbitrary characters standing for the letters of the alphabet, numerals, punctuation, etc. All of these characters can be made with one or more dots punched in what is known as a braille cell, two dots in width and three dots in height. As on the typewriter, each letter takes the same amount of space.

Mr. Wait, on the other hand, felt that braille was wasteful of space and so he developed a system of arbitrary characters occupying a space two dots high and extending horizontally to one, two, three or four dots in width. This type had what is known as a variable base, that is, a letter one dot wide used only one dot in width; a letter two dots wide used only two dots in width; and a letter three dots wide used three dots in width, etc. This resulted in a definite saving of space. However, lower case letters in New York Point were converted into capitals by a complicated system of adding dots under certain conditions, to make the letter four dots wide. This was so cumbersome that publishers almost never used capitals in their books.

When Louis Braille assigned a significance to a braille character he did not take into account the relative frequency of recurrence of that letter. For instance the character for "t" contains four dots and the character for "a" contains but one dot in spite of the fact that the letter "t" occurs in most languages more frequently than the letter "a."

This deficiency encouraged still another American to work on a dot system that would be superior to Braille's original code. Joel W. Smith, a blind piano tuning teacher at Perkins Institution for the Blind in Boston, felt that

letters made in a cell three dots high and two dots wide could be read more easily and written more rapidly than Mr. Wait's New York Point system. In order to gain for a system written in the braille cell some of the advantages claimed for New York Point he worked out a rearrangement of Louis Braille's characters. To save effort in writing he assigned the characters having the fewest dots to the letters recurring with the highest frequency in the English language. To keep down the bulkiness of embossed books he evolved a set of word contractions, assigning characters to them on the same frequency of recurrence principle. This new type he called Modified braille. Smith expounded his system before the American Association of Instructors of the Blind in 1878. However, New York Point was already the officially adopted type of the association. Mr. Wait and his friends gave the young mild-mannered Smith pretty harsh treatment at this meeting.

Modified braille was used more or less by the pupils of Perkins Institution but little more was heard of it outside of Boston for another decade. The official type at Perkins remained the simplified Roman alphabet, commonly called Boston linetype, in spite of the fact that it was difficult to feel and impracticable for the blind to write.

Louis Braille's system made little more progress outside of Missouri than did Modified braille. Blind pupils in some of the schools, notably in Illinois, used it for personal purposes but officially it was frowned upon as being an heretical competitor of the orthodox New York Point and the appliances for writing it were confiscated by the school authorities.

In 1890 there came onto the type scene as superintendent of the Pennsylvania Institution for the Instruction of

the Blind in Philadelphia, a young man who was destined to play a stellar role in the whole type controversy. He was Edward E. Allen who had formerly taught in the Royal Normal College for the Blind in London where an English adaptation of Louis Braille's system was in use. From London he had gone to Boston as a teacher in Perkins Institution. There he became familiar with Smith's Modified braille which was in use for manuscript purposes. He liked the scientific basis on which ordinary lower case letters could be converted into capitals by prefixing two dots in the bottom of the preceding cell.

Mr. Allen found New York Point in official use at Philadelphia when he arrived there. Though, as he said, the teachers did not like the system, he retained it for two years because it was the only dot type in which books could be obtained from the government-supported American Printing House for the Blind.

In 1892 a group of seven or more superintendents of schools for the blind met at the time of the Brantford, Ontario, convention of the American Association of Instructors of the Blind under the chairmanship of Michael Anagnos, Director of Perkins Institution. This group was dissatisfied with New York Point and decided to adopt some form of braille. They appointed a subcommittee consisting of Dr. John T. Sibley of the Missouri School for the Blind, Joel W. Smith and Edward E. Allen, to decide which braille alphabet to adopt in America. After some discussion, all but one, Dr. Sibley, decided to use Modified braille in spite of the fact that no books in this type were available. In 1900 this type was renamed American braille on the suggestion of Dr. Sibley.

At this time considerations regarding the mechanics of printing for the blind were interjected into the type ques-

tion. So far, embossed Roman letters known as linetype, and New York Point had been printed with movable type from which stereotype plates were sometimes cast. In England braille books had been printed from metal sheets punched out on a rugged braille writing frame with a heavy stylus and mallet. The author at one time had the privilege of shaking hands with Mr. John Ford who had, over a period of thirteen years, punched out the entire Bible by this method.

Modern printing for the blind may be said to have begun in 1892 when Frank H. Hall, superintendent of the Illinois School for the Blind, demonstrated his recently developed braille typewriter before the American Association of Instructors of the Blind at Brantford. This device tremendously speeded up the writing of braille. A good writer with a slate and stylus can seldom write more than from ten to twenty words a minute, whereas a proficient braille typewriter operator may, with a reasonable amount of practice, write two or three scores of words per minute.

From the development of a braille typewriter for writing on paper it was only a step to the development of a more powerful machine for embossing on sheets of brass, zinc or iron. This machine was called the braille stereotypemaker and was exhibited at the Columbian Exposition in Chicago in 1893. The printing process was simple. The embossed metal sheets were covered with tough, heavy paper about twice the thickness of ordinary book paper, and upon this was laid a rubber blanket. The whole combination was then inserted in a press, and pressure applied. When the paper was removed, it was covered entirely with braille printing.

With the advent of Hall's stereotypemaker Mr. Allen

set up a braille printing shop in his school in Philadelphia and several other schools followed, notably the Illinois School for the Blind. Embossed braille plates from these schools were sometimes deposited with the American Printing House for the Blind so that books could be made from them and sold to the various schools who wished to purchase them.

For many years a feud had raged between the sponsors of American braille and of New York Point. This feud, which was of such vital importance to the blind readers, became the basis of a bitter, personal controversy between seeing leaders on either side. One who had not witnessed the heat which was engendered by the debates on the so-called type question cannot realize how bitter these discussions could become. A superintendent of a school for the blind, who had originally favored the use of New York Point in his school, after considerable study switched over to the use of braille. When he came to the national convention of instructors the following year he found that some of his old New York Point associates refused to sit next to him at the luncheon table. In the light of this feeling on the subject, one can easily imagine the exultation among the braillists at the appearance of Frank Hall's braillewriter since it was impracticable to write New York Point on this machine.

Years later Mr. Wait, in telling the author about the Brantford convention, said that after examining the braillewriter he realized that New York Point was doomed unless an equivalent machine for writing his type could be perfected. He therefore went to work on this problem, and within a few months produced a typewriter for writing New York Point, which was christened the Kleidograph.

Mr. Wait further said that he had no sooner announced this machine than he had another surprise awaiting him, the braille stereotypemaker. Anyone who has had the experience of developing rather complicated mechanical appliances is amazed at the shortness of time that was required for adapting the Kleidograph to embossing on metal sheets. This extended the life of New York Point for another generation. We sometimes mourn the waste of time and money in this prolonged type dispute. However, it was not without its blessing. The competition between the backers of the two systems stimulated the development of improved appliances which might otherwise have been long delayed.

The advocates of the two rival systems worked hard at raising money from private as well as public sources to build up libraries in their favorite types. To Mr. Wait, who had labored for more than thirty years to perfect New York Point and who at one time had seen nearly every school for the blind in the United States using it as its official code, the controversy became very personal. Had New York Point survived, his name would have gone down in history alongside that of Louis Braille. As it turned out, he is today remembered as a very able and relentless leader among educators of the blind who died a disappointed, embittered old man. One of his greatest disappointments was the adoption of braille as the official system to be taught in the New York Public Schools.

In 1909 when plans were being made for the new day school classes for the blind in the New York Public Schools the thorny question of what tactile type to use in these classes came up for decision. There was so much feeling on the subject, especially in the city of New York where New York Point had its birth, that the Board of

Education wisely decided to hold a public hearing and let the advocates of the two systems present their cases before a committee of the Board.

There were two hearings held, the first on March 24, the second on May 18th. The time allotted to the first hearing was two and a half hours and was equally divided between the factions, New York Pointists having the first half. This gave the Point people no time for rebuttal and the protests were so violent that a second hearing was held.

William Bell Wait marshalled his witnesses in behalf of New York Point while Miss Winifred Holt, founder of the New York Association for the Blind, rallied the American braille forces. Behind this hearing, as the initiated realized, was a background of a long-standing feud between Miss Holt and Mr. Wait which had little or nothing to do with blind people's reading. Mr. Wait objected to Miss Holt's publicity methods, and Miss Holt was very critical of Mr. Wait's school for not taking more interest in the vocational prospects of its pupils.

Such authorities as Mr. Wait himself, Mr. John F. Bledsoe, Superintendent of the Maryland School for the Blind, Benjamin Berinstein who was then a young blind college student, and other New York Point stalwarts testified passionately in favor of New York Point.

Miss Holt persuaded such braillists as Frank H. Hall, inventor of the braillewriter, who long since had left work for the blind, to come to New York to testify. With him were such well-known personalities as George W. Jones, then superintendent of the Illinois School braille printing department and braille member of the Uniform Type Committee of the American Association of Workers for the Blind; Olin H. Burritt, then super-

intendent of the Pennsylvania Institution for the Instruction of the Blind; John B. Curtis, sightless supervisor of classes for the blind in the Chicago Public Schools, and others. Edward E. Allen, then director of Perkins Institution, was absent in Europe or he would doubtless have been one of the star witnesses.

Helen Keller, who has always avoided needlessly involving herself in controversies which might prove acrimonious, was not present, but she did write a letter to A. Emerson Palmer, Secretary of the New York Board of Education, which was read at the hearing.

The hall in which the hearing was held was packed to overflowing with backers of the two systems. Charles F. F. Campbell, son of the famous Sir Francis Campbell of the Royal Normal College for the Blind in London, England, and editor of the *Outlook for the Blind*, came down from Massachusetts with several others to witness the spectacle. A whole delegation came from Philadelphia, another from Baltimore, and local braille and New York Point fans listened eagerly. The author well remembers the breathless silence with which the audience hung on the words of the witnesses.

Backers of the respective systems burst into applause as telling points were made for their favorite type. The committee on types of the Board of Education must have been puzzled over the manifest public interest in this highly technical subject.

Both sides stressed for the most part the economy and flexibility of their systems. In New York Point a given number of words occupies substantially less space than in American braille. Mr. Wait made the most of the space-saving qualities of this type even to the point of exaggeration. He also directed attention to the fact that the avail-

able library of New York Point books was much larger than that in braille.

The advocates of American braille made a rather impressive showing by recounting the schools for the blind which had abandoned use of New York Point in favor of American braille indicating a strong trend toward the newer system. One of their strongest arguments was that, as New York Point publishers made little or no use of their cumbersome capitals or their four-dot long hyphens and apostrophes, most books were published without using any of these signs.

Studies based on tests made with a very few subjects claimed evidence in favor of braille, which was used effectively at the second hearing. However, the most telling blow that was given New York Point occurred at the first hearing. It was an exhibit offered by Frank Hall which showed two copies of a title page of a book in ink type, one entirely without caps as it would appear in New York Point and one correctly capitalized as it would appear in American braille.

Mr. Hall also showed an exhibit in ink type with apostrophes and hyphens omitted. Much was heard in those days of what was termed the "illiteracy" of New York Point which, when translated into ink type, made New York Point books look like very poor models of English to place in the hands of blind children.

Helen Keller's letter to Mr. Palmer summed up much of the argument in behalf of American braille. It reads as follows:

"My Dear Sir:

I regret that I cannot appear at the hearing before the Board of Education of New York City on March the

24th. I have been deeply interested these many years in the question of raised types, not so much for my own advantage (I read all the systems) as for that of the large number of blind persons who may not share my good fortune. I understand that you are to consider the relative merits of American braille and New York Point. Between these two systems, it seems to me, there can be no question when the facts are all properly presented to you.

"I have always found New York Point a difficult, unsatisfactory system. I object to it as it appears in most books which I have seen because it does not use capitals, apostrophes and hyphens. This sometimes spoils the sense for the reader. But it has a worse effect upon the young pupil. He is liable to get an imperfect idea of capitalization and punctuation. I have received letters written on the ordinary ink typewriter from blind persons which contained errors significantly like the defects of New York Point, and I cannot but believe that this illiteracy is traceable to their habitual use of a defective mode of punctographic writing during school years.

"It is true, the makers of New York Point have devised capitals; but it is noteworthy that this very winter the State Library at Albany was trying to decide upon a suitable capital sign. Forty years after this system was supposed to be 'perfected,' it is still in an undecided state! The capitals, when they are used, are not always unequivocal. I have often mistaken D for j, I for b and Y for double o in signatures, and I waste time looking at initial letters over and over again. I am not satisfied with the signs for hyphen and aspostrophe that I have found because they are cumbersome. It is possible to mistake the apostrophe for ou, especially in proper names.

"New York Point is much harder for me to read than American braille. It wears my reading finger more to travel over letters three dots wide and two high as they are in New York Point than over letters two dots wide and three high as they are in American braille. Also, it is a most trying task to decipher many letters which I get in New York Point. The writers evidently have trouble either with the system or the machine. Of the letters I receive in the two systems, a far larger proportion are well written in American braille.

"I note, too, that in the great world of the blind New York Point is a provincialism. The machines for it are made only in New York, and write only New York Point. On the other hand, machines for braille are made in Germany, France, England and America. I have owned American and German braillewriters which place me in communication with people all over the world.

"I am sure that in all important respects American braille is superior to New York Point because it meets completely the needs of capitalization, punctuation, legibility and physical ease of reading.

"With high regards, I am

Respectfully yours,
(signed) Helen Keller"

One of the high points of the evening for the writer was the effect the hearing had on his companion Charles F. F. Campbell. While Charlie was more in sympathy with English braille than with either of the American systems, he dearly loved a good fight. He had suggested to the writer that they find a secluded corner where they could listen unobserved. Being the editor of the *Outlook for the Blind* he felt he should hold a neutral position. Ex-

cept when presenting a matter in written form where words could be carefully weighed, a neutral role was a very difficult one for him to play as he was always enthusiastic about anything in which he believed.

When the exhibit of the two title pages was placed on the blackboard and the stunning effect of its appearance on the seeing members of the audience was evident, Charlie threw his arms around the author and added to the applause a burst of laughter which might have been termed a whoop! Charles had hoped his presence in the room would not be noticed but this now became a vain wish as every worker for the blind knew his expressive laugh. Friends and enemies alike (and he had both of a plenty) exclaimed in an audible whisper, "Charlie Campbell is here!" This is mentioned because it was so characteristic of this exuberant man who had such a profound influence on work for the blind during the first two decades of the century.

After mature deliberation the committee of the New York Board of Education finally handed down its decision in favor of American braille.

Most of the money for educational books for the blind comes from the United States Government. The federal appropriation for school books is made to the American Printing House for the Blind of Louisville, Kentucky. This institution, which is today the largest embossing plant for the blind in the world, is governed by a board of trustees on which the superintendent of every publicly-supported school for the blind in the United States is ex officio a member. In addition there are seven lay board members residing in Kentucky. From these lay members the president is invariably selected, and they constitute

the executive committee which handles the day-to-day business of the institution.

As long as most of the superintendent board members were advocates of New York Point, they had been able to prevent any of the federal money being used for publishing in braille. This forced the schools using braille to rely upon private philanthropy, or upon state appropriations for their books.

In 1910, however, it was evident that the forces of New York Point and the braille advocates on the board were nearly equal in number. This resulted in what at the time looked like a smart maneuver on the part of New York Pointers to preserve the New York Point monopoly on government funds.

It had been customary, since 1880, for the American Printing House for the Blind to hold a meeting of its board of trustees at the same place and time as the biennial convention of the American Association of Instructors of the Blind. This saved the superintendents attending the conventions the expense of going to Louisville to attend the annual meeting of the Printing House those years. In 1910 nineteen of the superintendents of schools using braille petitioned Colonel Andrew Cowan, President of the American Printing House for the Blind, to hold its usual board meeting that year at Little Rock, Arkansas, immediately following the convention of the American Association of Instructors of the Blind. Shortly before Mr. Benjamin B. Huntoon, Superintendent and Secretary of the American Printing House, sent out a letter announcing that it had been found to be illegal for the American Printing House as a Kentucky corporation to hold its board meetings outside of the state. To the braillists this seemed to be a sharp move. Several of the

superintendents lived on the Pacific Coast, and meeting the cost of going to Louisville from Little Rock would be a hardship for them.

When the superintendents gathered for the convention that year, emotions were running high. Since 1902 it had not been customary at these conventions to hold any public discussions on the type question. Experience had shown that the acrimony engendered made calm deliberation on educational problems well-nigh impossible. However, it was decided to disregard the old custom and bring into an open meeting the whole question of braille versus New York Point, as well as the sudden discovery of the illegality of American Printing House board meetings being held outside the state of Kentucky. The braillists had long looked forward to the time when they would have a majority on the board. They then could demand and would be able to force the allotment of a certain proportion of the federal appropriation for the embossing of braille books. Now it looked as if this opportunity might be snatched from them, for the year at least, through what seemed to many of them like a trick.

Those who attended the 1910 meeting will never forget the debate which was held in that hot, humid room in Little Rock that afternoon, late in June. Feeling ran so high that it was hard to find a member of the association whom they all could trust to preside. However, they finally selected a rugged old Hoosier, George Wilson, Superintendent of the Indiana School for the Blind, who had the reputation of rock-bound integrity. He professed to be entirely openminded on the subject of braille and New York Point. After careful study he had chosen for his school the braille system of music notation, while New York Point had been selected for literary purposes.

It was not an easy task to preside over this assembly. On one hand there was a group fearing that their favorite New York Point type was about to go down to defeat at the hands of an ill-advised group of newcomer braillists, and, on the other hand, a group of braillists who saw themselves about to be swindled by a technicality out of an opportunity to have government money made available for books in their type.

As the gentlemen assembled one could feel the tension in the air. It was decided that no questions would be barred at this meeting and that no punches would be pulled. Mr. Huntoon, who had exploded the legal bombshell, became both the target of criticism and the defender of the American Printing House for the Blind.

Everybody wanted the floor, so it was ruled by the chair that no one could speak more than once, until everybody else had had a chance. In fairness to the Printing House, it was also ruled that its superintendent might answer questions regardless of the number of times he had had the floor previously. Mr. Huntoon was, at that time, a zealous, elderly man who believed earnestly in New York Point. He was one of probably not more than ten per cent of the group who could personally read either system. As the author looks back on that meeting he remembers the eagerness of Mr. Huntoon to bring out certain points. Since he could not personally raise these points, except in answers to questions, he would appeal to the chair in his high-pitched voice to have someone ask him "the following question." Finally, Mr. Huntoon objected to one of the questions which seemed to reflect unfairly upon him and his institution. He said that he would not "waste his breath on a jackass like the questioner." The chairman ordered him to withdraw that re-

mark or he would suspend the discussion immediately. After a tense minute or more, Mr. Huntoon rose slowly to his feet and said, "Having delivered myself of the epithet, I now gladly withdraw it." This broke the tension and the meeting burst into prolonged laughter which seemed to give everyone as much relief as Mr. Huntoon's epithet had afforded him.

As a result of the discussion the braillists all determined that they would attend the Louisville board meeting the following day even if they had to ride home on brake beams. A special sleeping car was reserved for them and the annual meeting at Louisville had a record attendance that year.

Regular business of the Louisville meeting was disposed of with the customary dullness that characterizes most annual board meetings. Finally, under new business, the motion for which everyone was waiting breathlessly was made, taking the form of a proposal that forty per cent of the government appropriation be expended on the publication of American braille books. The vote was a tie. This left it up to the chairman of the meeting, Colonel Andrew Cowan, a local businessman of very high repute, to cast the deciding vote. Mr. Huntoon implored him in a whisper to kill the motion. Colonel Cowan disappointed his New York Point friends by stating that the motion seemed like a reasonable request since forty per cent of the pupils represented by the superintendents were in schools which had officially adopted American braille. He cast the deciding vote in favor of the resolution, and one can easily imagine the chagrin of the New York Point members. From that time on, forty per cent of the federal appropriation went for American braille books

until Revised braille completely supplanted both of the contending systems.

Meanwhile the blind people, who were the real sufferers as a result of the controversy, had become heartily disgusted with the fight going on between superintendents of schools for the blind, few of whom could read either system.

In 1901 the American Blind People's Higher Education and General Improvement Association at its Kansas City convention passed a resolution which read as follows, "That a committee be appointed to investigate the various forms of tactile print, and to labor for the adoption of some one universal system."

In 1902, pursuant to this resolution, the Tactile Print Investigating Commission was created, consisting of four members, and chaired by Ambrose M. Shotwell, a blind man who was braille printer of the Michigan School for the Blind and later braille printer and librarian of the Michigan Employment Institution for the Blind in Saginaw. A prominent member of the commission was John B. Curtis, also sightless, who was supervisor of classes for the blind in the Chicago Public Schools which operated a small braille printing shop.

The Tactile Print Investigating Commission, handicapped by lack of any funds with which to work, conducted a few tests to ascertain the relative legibility of letters having a few dots as compared with letters having many dots. It also made a few tests designed to determine the relative legibility of words containing letters of one and two dots in height and one and two dots in width. The number of subjects tested were too few to more than suggest conclusions which were later arrived at after testing several hundred readers.

Before the commission wound up its affairs it also endeavored unsuccessfully to get the British Braille Committee to cooperate with it. The principal achievement of the commission was that of focusing the interest of a larger number of thoughtful blind people upon the desirability of the adoption of a uniform type based upon scientifically demonstrated principles.

In 1905 the successor to the American Blind People's Higher Education and General Improvement Association, the American Association of Workers for the Blind, at its convention in Saginaw, Michigan received a letter from Charles W. Holmes, resident of Rock Island, Quebec, Canada, and President of the Alumni Association of Perkins Institution for the Blind, which is quoted in part because it expresses so well the feelings of thoughtful blind people at that time.

"I desire to . . . present our views upon the great type question, which seems just now to be one of the most important and prominent before the consideration of the blind and their friends. The most lamentable fact in this connection is that we have at present five distinct codes of embossed print, and virtually subdivisions of some of them as well—since some books are printed with, and some without contractions. In order to avail himself of the full range of literature (which at best is woefully limited) the blind reader must learn, and keep well up in, all these codes. . . . How long would our seeing friends stand for such a state of affairs in ink type? Imagine for a moment the ridiculous situation that would arise, if the daily papers published in Boston had an entirely different system of characters from those used by New York publishers, and that a Philadelphia man could not read either without special training, because his own city had adopted

a third, as unlike the others as the Chinese characters are unlike the Roman. . . . What we need, and must have, and will have if we but make up our minds to it, and stand by each other, is an international, universal code of embossed type for all English-speaking countries. . . . Will not this association which is a mighty power in the affairs of the blind in this country, put its shoulder to the wheel and see to it that the word to quit is not given till the wheel moves? . . .

"It would be very acceptable to the advocates of braille, if that code could be taken as the basis of the universal code. New York Point supporters would feel the same satisfaction, if that system could be put to the front, and so with each of the five, no doubt. But in such an undertaking nothing can be accomplished unless all are willing to make concessions, cheerfully, and if necessary stand prepared to abandon their own individual choice, and abide loyally by whatever may ultimately be agreed upon by the majority. . . .

". . . At present there are a good many books printed in more than one code, which is a needless waste of time and expense but is necessary under present conditions in order that the readers in different systems may have the privilege of reading them. Stereotyping is playing an important part in our printing now and is one of the strongest arguments for a universal code. When once the plates are stamped for a certain book, the additional expense of striking off a few hundred more copies is, comparatively speaking, very trifling. There already exists a most praiseworthy system of exchange of books among our printing houses and libraries. Let this continue and be extended systematically on both sides of the water. . . . Think what a great increase of literature there would be for the same

total expense that is now laid out by the combined presses of England and America, and every book available to every reader, on both sides of the ocean.

"May I not urge upon you my friends, that you give this matter your most serious consideration . . . till the end is accomplished? We shall have opposition both from the blind themselves and from some of those in authority over them, no doubt; there will be more or less confusion and perhaps inconvenience for a time to the readers, but what great good was ever yet brought about . . . without opposition and sacrifice? . . . The time is now ripe for action; the English-speaking world, so far as the blind are concerned, is aroused. They are feeling their way toward a solution. If we let this opportunity pass, it may be years before another occasion so favorable will present itself. . . ."

Mr. Holmes also wrote a similar letter to the International Conference on the Blind which was held in Edinburgh the same year, in the hope of interesting British authorities in the subject.

The Tactile Print Investigating Commission was succeeded by the Uniform Type Committee of the American Association of Workers for the Blind which was set up by the following resolution at the 1905 convention at Saginaw, "That we favor the adoption of some one uniform type for use in schools and general reading, and that a committee of five be appointed to communicate with the British Braille Committee, and to continue the work heretofore assigned to the Tactile Print Investigating Commission." This committee consisted of the following, all of whom were blind: Charles W. Holmes, Elwyn H. Fowler, John B. Curtis, Lee N. Muck, Ambrose M. Shotwell. Two of the members were New York Point

advocates, two American braille advocates, and the fifth soon became known to be partial to British braille.

The Uniform Type Committee began by stating that linetype was passing from the stage as a competitor. It recognized, however, that Moon type had a certain value for use by blinded aged and hard-handed persons. In this connection it was suggested that a dot system arranged in a cell three dots high and three dots wide and roughly resembling Roman letters might be superior in some respects to Moon type as it would be less expensive to manufacture by movable type, easier to learn, more tangible, and capable of being written by hand. This suggestion, however, never got beyond the academic discussion stage.

The committee decided to concentrate its study on the relative merits of the three point systems, American braille, New York Point and British braille. The problem was broken down into certain characteristic elements of the systems which could be compared one with another. It was hoped that the claims for the various systems were susceptible of scientific testing. For example, New York Point is a dot system in which no letter is more than two dots vertically, while horizontally it might be one to four dots. On the other hand, braille consists of one or more dots arranged within the braille cell, three dots vertically and two horizontally. Which is more legible?

Test sheets were prepared, each containing an equal number of characters. On one sheet these characters were one, two or three dots high; on the other sheet the same number of characters were arranged one, two or three dots in width. These characters were placed in lines as they would appear in an embossed book and grouped in from two to five characters such as might appear in

words. Each character, of course, was the equivalent of a braille or a New York Point letter.

In administering the test a blind subject was asked to read the sheets and simply call out the number of dots in the character under his finger so that it made no difference whether or not he knew the letter for which it stood. A stop watch was held by an observer who followed on another copy of the test and the subject was directed to call the number of dots in these characters as rapidly as he could recognize them. It was felt that if the sheets having characters three dots wide (characteristic of New York Point) could be read faster or with fewer errors than the sheets with characters three dots high (characteristic of braille), a superiority for New York Point would be indicated, If, however, the characters three dots high could be read more rapidly than those with the horizontal arrangement of dots, a superiority for braille would be suggested.

Several scores of persons were tested in this way, and it was found that even in the areas where New York Point was the prevailing system the sheets with characters three dots high were read more rapidly.

Other tests were devised which, it was felt, would test other characteristics of the systems. Unfortunately, as in the case of the committee's predecessor, the members had little opportunity to get together because of the lack of working funds.

At the 1907 meeting of the American Association of Workers for the Blind a report was made which was inconclusive because data had been collected with so few subjects that the findings might conceivably be reversed if a larger number of readers were to be tested. The committee was continued. In 1909 the American

Association of Workers for the Blind met in Columbus, Ohio. A report was submitted which, for the same reason, was not convincing to persons having a predisposition toward New York Point. It became known at this meeting that the two New York Point advocates on the committee had become so convinced of the superiority of braille over their former favorite system that they now were advocates of braille, so that the committee then stood four favoring American braille and one favoring British braille. The New York Point advocates who attended the convention were outraged at the betrayal of their favorite type. Dignified superintendents took the platform and denounced the committee, denounced its methods, denounced its motives, and, had congressional investigations then been the order of the day, they would probably have demanded either a congressional investigation of the subject or, at least, that a grand jury be called to search out the culprits.

To calm the turbulent waters, and on the motion of a braille advocate, it was voted that the number on the committee be increased to ten by adding five who favored New York Point. Among the newcomers were two who for several years were destined to play a major role in the settlement of the type question—H. Randolph Latimer, sightless member of the faculty of the Maryland School for the Blind, and Miss L. Pearl Howard, a young graduate of the Iowa State School for the Blind. Mr. Latimer withdrew soon after election, but rejoined the committee again in 1911.

Something of the spirit of the committee may be gathered from a recent interview between the writer and Miss Howard, who said, "When offered the appointment on the committee I asked if I was expected to work

for the general adoption of New York Point or for a uniform type, whatever it might be. The reply was that I should work for a uniform type regardless of any predisposition I might have. This was all I wanted to know and I accepted service under those condtions. This decision may have cost me some of my Iowa friends who were in favor of the New York Point."

Little money, however, was made available to the committee, so that they had to depend for the most part upon their own slender purses to meet the costs of any investigations they might make. In the spring of 1911 the committee felt that it must try out relative legibility tests on more people. Accordingly, in spite of the committee's lack of funds, arrangements were made for Miss Howard and Mr. Elwyn H. Fowler and his seeing wife, Mary, to visit the New York State School for the Blind at Batavia where New York Point was the official embossed type. The purpose of this visit was quite as much to test the validity of some new tests as to assemble convincing data.

The next biennial convention of the American Association of Workers for the Blind was held in June 1911 at Overbrook, Philadelphia in the assembly room of the Pennsylvania Institution for the Instruction of the Blind. The committee had little to report at that meeting beyond plans for more scientific study if at least $3000.00 could be made available. It offered to raise $1800.00 if those at the convention would show their faith in the committee by pledging $1200.00. The committee's report consisted principally of an effort to impress upon the lay public and upon the seeing superintendents of schools for the blind the nature of the problem in hand, the tragic confusion of the whole affair to the blind, and

the shamefulness of wasting money in the duplication of books in the various systems.

The committee selected a seeing man, Charles F. F Campbell, to expound the report of the committee to the convention because he was known as one of the most ardent advocates of just treatment of the blind who ever lived. Charlie had a flair for presenting in a clear way problems of concern to the blind. It is fortunate that he was chosen for this task. He was more accustomed to public speaking than any of the members of the committee. As a seeing man he could plead that the seeing members of the association and the seeing public, to whom the type question was largely an academic one, give the committee of blind people funds with which to work.

The committee reported that they must have money enough to employ two agents, one blind and one seeing, to travel about the United States from one typical community to another, explaining the methods and objectives of the committee and, through tests, collect data which would eventually enable any fair-minded person approaching the subject dispassionately to decide upon a satisfactory code of embossed type.

The convention consisted of men and women of whom perhaps half were blind, and all of them were deeply interested in problems of vital concern to the sightless. Practically all of them were in very modest circumstances—some were teachers, some were broom-makers, some were home teachers, some were small businessmen, some were dependent upon small pensions of one kind or another. However, this group represented the rank and file of blind people as well as of workers for the blind. Whatever decision they arrived at, while

not binding upon anyone, would have a great moral influence on the thinking of those in control of agencies for the blind.

It was to this group that Mr. Campbell pleaded for funds to carry on the scientific study of a field in which thousands of dollars were wasted every year through duplication. Everybody agreed that duplication was wrong, but no one had enough data on which to base an argument for any one type which would be convincing to those predisposed to another.

Mr. Campbell made an impassioned appeal to this group for moral support, but, more importantly, for financial support. No evangelist ever made a more heartfelt plea. That little group of 330 men and women was thoroughly aroused. Charles W. Holmes, Chairman of the Uniform Type Committee, who then held a position in work for the blind in Massachusetts, announced that he would start the fund with $100.00, one month's salary. Others followed with smaller amounts. One man, who many present knew was living on a pension of $150.00 a year, pledged $5.00. Finally the Director of Perkins Institution for the Blind, an old advocate of American braille who felt that so far as he was concerned the question had been settled for twenty years, pledged $200.00 from the Howe Memorial Press, an organization affiliated with Perkins Institution. No million dollar pledge of a Rockefeller brought forth more enthusiastic cheers. At the end of an hour it was announced that $1500.00 had been pledged. The committee then felt that with this show of confidence it could go forth and raise, from the general public, the additional $1800.00 it had pledged itself to collect. Before the next meeting a total of $4,133.60 was raised. With the funds now in

sight the committee could proceed with some real research.

Word of this meeting and its results spread over the entire community of the blind of the United States. It now looked as if the end of the type dispute was in sight. How little most of them realized that it would be another five years before anything even resembling uniformity would be found in the United States and that more than twenty-one years would elapse before they had a uniform type for the English-speaking world.

About this time Mr. M. C. Migel, a wealthy, retired silk manufacturer in New York City, who had long been interested in blind people, heard of the Uniform Type Committee's work. For twelve years he had given one evening a week to reading to blind men and women residents of the Society for the Relief of the Destitute Blind in New York City. He became very fond of many of the people who attended his reading circle, and one time brought back from England a braille book for one of the girls in the institution. Much to his amazement he found that she could not read it, not because she was illiterate, but because the book was in British braille and she was a reader of New York Point.

When he heard of the Uniform Type Committee and its efforts to bring some solution to the problem, he stopped in the reading room for the blind at the Library of Congress and asked Mrs. Gertrude T. Rider, the librarian in charge, if she thought money contributed to the Uniform Type Committee would bear fruit. A few days later Miss L. Pearl Howard and Mrs. Elwyn H. Fowler, representatives of the Uniform Type Committee, visited the library. While she felt that she could not expose Mr. Migel to a direct appeal from the committee,

Mrs. Rider promised these representatives that she would suggest to Mr. Migel that he get in touch with them or with the chairman of the committee. A little later Mr. Migel called on Walter G. Holmes, managing editor of the *Matilda Ziegler Magazine for the Blind*, and learned that it was a source of great distress to him that he had to issue the magazine in two editions, one for those who read New York Point and one for those who read braille. He begrudged the waste of precious money. However, he had some doubts about the ultimate success of the efforts of the Uniform Type Committee. He had seen too much bitter controversy to allow himself to believe wholeheartedly that the committee could settle the question.

Mr. Migel posed this query to Mr. Holmes; would it be worthwhile for him to give a thousand dollars to the committee? Mr. Holmes said it depended on how much "one thousand dollars" meant to him, to which Mr. Migel replied that really a thousand dollars did not mean too much to him.

With the funds raised at Overbrook and with some additional money which had come in from other sources, the committee was able to employ Miss Howard and Mrs. Fowler on very modest salaries. This pair of devoted representatives travelled about the country conducting tests in thirty-six states. Everyone was eager to know what these tests were showing. Was New York Point showing up better than it had originally, or was braille still in the ascendency?

After visiting a majority of the schools for the blind in the United States where either New York Point or American braille was in use, the committee felt that some tests should be made in a school where the British version

of braille was in vogue. Practically the only school in North America answering this description was the one at Halifax, Nova Scotia. Accordingly, Halifax was visited and several scores of pupils were tested. Immediately, the agents were impressed by the facility with which these pupils read, and to their consternation a study of test sheets indicated a striking superiority of British braille over either American braille or New York Point.

A hasty meeting of the committee was called in Boston and the results to date reviewed. Twelve hundred American readers had been tested. They were about equally divided between New York Point and American braille. In most respects American braille had been demonstrated to be superior to New York Point, though New York Point had certain space-saving advantages resulting from its variable base which made books in that system more compact. Now they were confronted with results of tests made of British braille which seemed to show that that system was superior to either of the American systems. However, it was judged both dangerous and unfair to scrap the two American types on the showing made with British braille by hardly a hundred readers.

The data collected, however, was so convincing that when it was laid before the committee, it was apparent to all that neither American braille nor New York Point would survive. However, British braille had exhibited certain weaknesses, and if the slate were clean and a new system devised it seemed probable that a punctographic code theoretically superior to any of the three could be developed.

The committee feared that if British braille were adopted with all of its faults, some future student of the subject might again upset the whole world of the blind

with a type controversy by promoting a scientifically demonstrable superior code. Therefore, it was decided to strike out boldly and work out an entirely new code —a code that would utilize the British or French braille alphabet and, for contraction purposes, utilize characters which had been demonstrated to be the most legible to represent groups of letters recurring with the greatest frequency in the English language—a code which would not only utilize a cell three dots high but would also utilize the variable base which had given to New York Point its space-saving and some other advantages.

Accordingly, on June 25, 1913 the committee recommended at the convention of the American Association of Workers for the Blind held at Jacksonville, Illinois that an entirely new stystem, to be known as Standard Dot, be promulgated for use throughout the entire country, scrapping both New York Point and American braille.

The recommendations of the committee were approved when put before the delegates to the convention and the committee was directed to elaborate further the proposed system. This outcome was not a victory for any of the contending systems. The American braille code was discarded but the three levels of dots upon which it was based and the principle of frequency of recurrence, fundamental parts of the system, were retained. The New York Point code was also discarded but the variable base as well as the principle of frequency of recurrence was retained. The advocates of both systems were crushed, and they were left to take what comfort they could out of what remained, plus the fact that their hated rival had fared no better.

What is this British braille system that had shown up

so well? What had been happening in England during all this time? In 1876 through the influence of the British and Foreign Blind Association, later the National Institute for the Blind, Louis Braille's French alphabet, with upwards of two hundred contractions and abbreviations adapted to the English language, won ascendancy over all other competitors as the reading code for the blind of Great Britain. Among its contractions were characters standing for ing, ch, sh, action, ally; and such abbreviations as shd for should, bl for blind, rcv for receive, dcv for deceive, etc. After several years' experience with the new code considerable dissatisfaction with its set of contractions had grown up throughout Great Britain. The *Hora Jucunda*, a braille magazine published in Edinburgh, opened its columns to a discussion of the merits and demerits of braille as early as 1893. Soon it began agitating for the appointment of a representative committee to revise the system.

In 1902 the various interested groups got together on a committee known as the British Braille Committee sponsored jointly by the British and Foreign Blind Association and the Gardner's Trust for the Blind. This committee, after some three years of work, agreed upon a new set of rules and contractions. This system was to be known as British Revised braille. The alphabet, numerals, punctuation and a few other signs made up what was called Revised braille grade 1. Revised braille grade 2 consisted of grade 1 plus some two hundred contractions and abbreviations. Revised braille grade 3 consisted of grade 2 plus upwards of a thousand more contractions and abbreviations. These contractions were selected largely on the basis of personal observation as to their usefulness and frequency of recurrence in English. Some-

one said that these contractions were an aggregate of individual preferences rather than a set of scientific symbols, as no extended study had been made to demonstrate their value.

However, this committee submitted its report to its sponsoring organizations in 1905 shortly before the meeting of the International Conference on the Blind in Edinburgh. The Edinburgh convention approved the report. This action, however, had no international significance because only a few foreign visitors attended this British meeting.

To revert to the American Uniform Type Committee in 1913—a more detailed study of British braille seemed called for. A careful study of the committee treasury and of the cost of travel to Great Britain and other financial considerations indicated that by scrimping painfully and omitting a printed report, and by travelling on the steamship at the lowest possible rate, the representatives of the committee could go to England and make a limited number of tests.

On the day before leaving for England Chairman Holmes received a letter from Mr. M. C. Migel in New York expressing his interest in the work of the committee and enclosing a check. No one unacquainted with the zeal of the Uniform Type Committee members can realize what this sudden discovery of such a financial sponsor meant to them. Now the representatives of the committee could travel in a dignified, comfortable way with resources which would enable them to visit several large centers of population in Great Britain where a sufficient number of blind subjects could be found to give conclusive results.

The representatives of the committee were Messrs.

Fowler and Latimer, Miss Howard and Mrs. Fowler. They sailed in the early summer of 1914, and their stay in England coincided with the International Conference on the Blind in London.

Several other persons intimately familiar with the work of the Uniform Type Committee were also in attendance. The delegates were most cordially received by workers for the blind in Great Britain, who gave full support to the investigations carried on by the committee. Upon its return to America the work was begun on the development of the proposed Standard Dot system.

In 1915 the convention of the American Association of Workers for the Blind was scheduled for Berkeley, California, mainly to give its members an opportunity to visit also the Panama Pacific Exposition held in San Francisco, across the Bay. The sister association, the American Association of Instructors of the Blind for the same reason had postponed for one year its convention originally scheduled for 1914, and had decided to hold a joint meeting with the American Association of Workers for the Blind. Before the two associations the Uniform Type Committee reported the completion of its work on the development of the Standard Dot code and recommended its adoption for general use. The American Association of Workers for the Blind accepted the report and adopted the new system. The American Association of Instructors of the Blind, composed mostly of seeing executives, was a little more cautious. It voted to accept the Standard Dot system only on condition that the British type authorities would do likewise.

The report also recommended that the Uniform Type Committee be forthwith discharged, as its work was considered finished. This was done, and in its place the

two associations created the Commission on Uniform Type for the Blind to carry on the work.

Miss H. C. Russell was present at this meeting, representing the National Institute for the Blind in Great Britain. She was not overly optimistic about the acceptance of the new code by her British countrymen.

As one looks back on it now, in the light of what has happened since, it was naive of any of this group to think that the practical, hard-headed British authorities in control for the blind, who were perfectly satisfied with the type they then had, would accept any such proposal. As recently as 1905 the British had revised their code and at great expense had scrapped their old system of contractions upon the recommendation of a committee that had given long study to the subject. However, in a spirit of innocent optimism, Standard Dot was seriously proposed as a worldwide type for the English-speaking blind. The British studied the code and while the official correspondence on the subject was polite, they popularly dubbed it "Standard Rot" and would have none of it.

Under the date of December 15, 1915 Mr. W. M. Stone, Headmaster of the Craigmillar School for the Blind in Edinburgh, wrote an open letter to Mr. H. R. Latimer, Secretary of the new American Commission on Uniform Type for the Blind, which was obviously intended largely for home consumption. This letter which was published in the British periodical *Teacher of the Blind* for January, 1916, read in part as follows: "What is it that you claim for Standard Dot? I know what you will reply—uniformity, increase of accuracy, increase of speed. Well, we want uniformity, we want it badly; but we think there are other ways of reaching it. There

would be uniformity if you adopted British braille. There are more readers of British than of any other system of punctography. People frequently talk as if British braille was the concern only of those living in the British Isles. It is the system of the blind of Australia, New Zealand, South Africa, Canada and India. It is as nearly identical with the braille of European countries as differences of language make possible, and it is actually read by great numbers of every European country. Therefore, if uniformity is to be the great gain, it is only reasonable to ask you to conform to our system. With regard to increase of accuracy, I must candidly say I think that accuracy after reaching a certain point is of little importance. I find that blind people, children or adults, read quite as accurately as seeing people. And the gain you show in accuracy is so very small, only two per cent. You see I am accepting your figures, but it must be remembered they are only theoretically obtained, no actual tests between the two systems have been taken. There remains speed, which is equivalent to fluency. I think this is much more important than accuracy, for without ease there is no pleasure and without pleasure there is little real reading. Well, what is your claim for this point? Only a gain of six per cent. It comes to this, then, so far as I have been able to work it out, that the sacrifices are what I have stated, and the gain is problematic increase of speed. . . ."

The universality in the use of British braille implied in Mr. Stone's letter was not as significant as it sounds. There were probably less than five hundred braille readers in all of India and the combined reading blind populations of New Zealand, Australia, South Africa and a small section of Canada using British braille was prob-

ably not greater than the reading blind population of New York and Pennsylvania. Furthermore, about all that was common in braille between Great Britain and the European countries he refers to was the alphabet, and Standard Dot utilized the British braille alphabet.

Two days later (December 17, 1915) Mr. Stone wrote a personal letter to Mr. Latimer which included the following paragraph: "I am so sorry that Standard Dot appears to us in this country impossible of acceptance. We don't doubt for a minute that it is a very good system, but then so is British braille, and why should we change to gain so little?"

In the United States, also, Standard Dot met with little enthusiasm. It was clear within a few months that without British participation the new code would never go into practical use. It was evident to the most optimistic of Standard Dot devotees that there was no hope of arriving at a uniform code based on anything but British Revised braille. Mr. Latimer, Secretary of the commission, wrote a letter dated January 8, 1916 to Mr. Henry Stainsby of Great Britain reporting on a recent meeting of the Commission on Uniform Type. In this letter he stated that it was the unanimous opinion of the commission that cooperation with Great Britain as to securing one uniform type for the blind of the English-speaking world was still the paramount aim of the commission. He also stated that the commission would like to know, should the Americans undertake the adoption of the British braille system as the uniform type of the English-speaking world, would the British official representatives be willing to undertake the improvement of the British braille system in so far as contractions, capitalizations, etc., were concerned?

He reported that the commission had appointed a subcommittee consisting of Messrs. Olin H. Burritt, M. C. Migel and H. R. Latimer to take this matter up at once with Great Britain and suggested that the British appoint a similar committee that would be thoroughly representative and official.

The British took steps immediately to set up a corresponding committee. At the request of the British committee the commission proposed certain changes in the British braille system which in its opinion would not cause too much confusion to those already using the recently Revised British braille but which would make it much more palatable to the American students of the subject.

The American educators objected especially to certain abbreviations and contractions, upon the theory that it would make blind finger-readers poor spellers when they came to writing on the typewriter. The Americans also felt that the large number of contractions and abbreviations would be too difficult for many blind people to master.

The American subcommittee suggested that the customary rules for capitalization in inkprint be observed instead of disregarding capitalization altogether, as was the custom in British braille books. To Americans it seemed probable that British publishers would not have fallen into the practice of omitting capitalization entirely if it had not been for the fact that the two-dot capital sign in British braille was so obtrusive as radically to alter the word form. The committee also recommended that a few contractions having a very low frequency of recurrence, and many which had been demonstrated by the Uniform Type Committee's tests as having a low

degree of legibility, be deleted from the Revised braille code. Among the former were such characters as the sign for "Christ," "Lord," "unto," etc., which were obviously designed to take care of words recurring with great frequency in religious literature; and among the latter were such characters as those for "still," "child," "enough," etc. The committee further recommended that fourteen others which effected a space saving of less than two hundredths of one per cent be omitted as imposing a burden on new learners out of proportion to their space saving value, and that Roman numerals be followed by a period instead of an apostrophe.

Receiving no immediate reply from the British committee the American Commission on Uniform Type decided to cover itself by obtaining some additional authority from the American Association of Instructors of the Blind at its convention which met in Halifax in June, 1916. The commission recommended that that association adopt Revised Braille grades 1 and 2 as authorized in Great Britain, *provided however*, that the duly authorized English committee come to a full agreement with the American Commission on Uniform Type for the Blind concerning such modifications in Revised braille as had been proposed by the American commission or as might be proposed by either the American commission or the English committee.

The commission further recommended that it be continued and that it be expanded to include representatives of residential schools, public schools having classes for the blind, home teachers, embossed printing presses and libraries for the blind.

These recommendations were approved by the Association.

It should be borne in mind that in all this work the British authorities in the world of the blind were handicapped by the disruption caused by the first world war which during 1916 and 1917 was absorbing most of the thought and energy of the British people. This accounts in a large measure for the long delays which sometimes occurred between the transmission of American proposals and the British action on them. However, British interest in the subject of uniformity was evinced in the formation of the National Uniform Type Committee on July 28, 1916, with Sir Arthur Pearson, of St. Dunstan's fame, as chairman.

In March, 1917 the Commission on Uniform Type received a letter from Sir Arthur Pearson which reads in part as follows: ". . . The suggested changes in braille contained in your report of March, 1916 have been carefully considered . . . by the National Uniform Type Committee as a whole.

"It appears to us that many of the suggestions of your committee have been made with a view to eliminating certain difficulties which are assumed to exist, but our experience of British braille leads us to believe that these difficulties have assumed a rather exaggerated importance in your consideration. . . .

"The National Uniform Type Committee is quite cognisant of the fact that the present system of British braille is capable of improvement but their experience leads them to the belief that improvement does not lie along the lines suggested in your report.

"We deeply regret that after long and most careful consideration we have been forced to the conclusion that the proposed changes would not be acceptable to users of British braille, and would tend rather to weaken the

system than to strengthen it. They seem to us indeed to be, if we may say so, of a minor and somewhat vexatious nature which, while of sufficient importance to derange existing knowledge of braille, are not of real value in securing its perfection. . . .

"We shall, of course, be most happy to consider any further suggestions which due consideration may lead you to offer, and we once more assure you of our earnest desire to arrive at conclusions which will benefit the English-speaking blind community in the manner which we both desire."

The British committee did not vouchsafe for the consideration of the American commission any changes in the braille system which might be acceptable to them as improvements.

Failing to obtain any concessions whatever from the British braille authorities, the commission decided that America should go it alone for the time being. Its recommendations to the American Association of Workers for the Blind at its 1917 convention in Portland, Maine were designed to bring about the adoption of a uniform type for the United States which would be entirely legible to British readers and at the same time leave the way open for future negotiations to bring about the addition to the American system of as much of the temporarily rejected portion of Revised braille grade 2 as might later be agreed upon. To this end the following recommendations were made to and adopted by the American Association of Workers for the Blind:

> That the association, in adopting this report, expresses its earnest desire to have the question of uniform type settled without further delay.

That the commission be authorized to draw up, as soon as possible, a form of "Revised Braille" based upon the present grades 1 and 2 to be designated for the present as grade 1½.

That the said grade 1½ shall consist of the alphabet, punctuation marks, numerals, and all single-cell contractions of grade 2, except such few characters as for special reasons it may seem wise to revise (such as the substitution of dot 6 for the present capital sign) with the understanding that no new contractions be introduced.

That the joint commission as now constituted shall be a permanent board vested with final authority in matters pertaining to uniform type; and that all printing houses be urged to conform to its rulings in actual practice.

In 1918 the American Association of Instructors of the Blind also endorsed the work of the Commission on Uniform Type, and thus the commission was set up as a preliminary board vested with the final authority in matters pertaining to uniform type for the blind.

The commission, acting under its delegated powers, now officially adopted for use in the United States Revised braille grade 1½ as the uniform type for the blind of America, while utilizing mathematical and chemical notations of the British as standard.

The following year the commission agreed that the British key to the braille music notation together with such additions and amplifications authorized by the National Institute for the Blind in London, should be the standard, except that the text to be published in the United States should conform in its verbal text to grade 1½ of Revised braille. So far as America was concerned, it now had a uniform type which it believed would be

equally usable by British and American finger-readers. Experience, however, showed that the British made comparatively little use of American books partly because the libraries for the blind of Great Britain did not offer many such books to the readers and partly because facile readers of grade 2 in England were slowed down in their reading by the fact that grade 1½, by the omission of so many contractions, presented to the finger in practically every sentence several words which had an altogether different form from that to which the reader was accustomed. Obviously, there was much yet to be done before the benefits of a uniform type for the English-speaking world could be enjoyed.

In 1919 the Commission on Uniform Type asked the American Printing House for the Blind to employ a competent man to make decisions regarding the various phases of work involved in printing for the blind, the standardization of printing, etc., use of types, etc., said man to be thoroughly conversant with the technical and educational problems involved in printing embossed books and the manufacture of apparatus for the blind. This man was supposed to act on all technical and educational questions in conjunction with a joint committee to be appointed respectively by the trustees of the American Printing House for the Blind and the Commission on Uniform Type for the Blind. The failure of the trustees of the American Printing House for the Blind to pass favorably upon this request made it incumbent upon the chairman of the commission to appoint various subcommittees to carry on the work contemplated.

One of these subcommittees was concerned with international unity. One more attempt was made to win British cooperation. Mr. Burritt and Mr. Latimer wrote

a joint letter in behalf of the commission to the British authorities reporting that a new subcommittee had been appointed to act with the British as an international subcommittee on uniform type. Nothing came of this beyond an invitation to come to England to study their braille reproducing processes which, according to Sir Arthur, had then reached a "state bordering on perfection."

The American blind were tired, however, of changes. Many still living had first learned linetype, then New York Point, then American braille, then Revised braille grade 1½. The rank and file of finger readers had a good deal of sympathy with a speaker at one of the national conventions who in a burst of oratory said, "If anyone invents a new system of printing for the blind, shoot him on the spot." It was deemed wise therefore to let the discussion of complete uniformity between the United States and Great Britain lie dormant for awhile.

In 1922 the Commission on Uniform Type gave its report to the American Association of Instructors of the Blind and recommended that it be discontinued and that its powers be delegated to the newly organized American Foundation for the Blind. The same recommendation was made by the Commission on Uniform Type to the American Association of Workers for the Blind at its convention in Janesville in 1923. The recommendation was adopted and the Foundation accepted the responsibility. It, however, exercised its powers with great reserve because it felt that the instructors' association whose members controlled most of the braille printing in the United States had not acted entirely favorably upon the delegation of authority. It was natural that the printing houses and the men who controlled them should be con-

servative about making any more changes in the braille system. The abandonment of New York Point and American braille had been a costly action as it meant the scrapping of a supply of tens of thousands of braille plates which had been manufactured at so much expense over so many years.

The American Printing House, in the meantime, went forward with the publication of a new set of textbooks and supplementary reading matter in braille grade 1½. Most current magazines adopted grade 1½ and practically all the books of any kind published for the blind in the United States between 1917 and 1932 were in this grade of braille. The matter was left dormant until the late 1920's when the American Foundation for the Blind began to study the relative merits of grade 1½ and grade 2 from a somewhat new standpoint.

Investigation showed that grade 2 occupied some twelve per cent to fourteen per cent less space than grade 1½ and could be written with the use of a substantial percentage of fewer dots. Furthermore, the advantages of interchanging books with Great Britain where large numbers of interesting titles were being produced each year, could not further be ignored. While the British readers looked longingly at the rapidly growing selection of titles in grade 1½, they claimed that they could not read it as rapidly as grade 2. At first the Americans felt that the contention that grade 1½ could not be read as rapidly as grade 2 by experienced grade 2 readers was just an illustration of British obstinacy. However, there was a psychological basis for this British contention. Rapid finger-readers, like visual readers, do not spell out words character by character; they come to recognize many common words, especially short ones,

by their word form. Many words as written in grade 2 have an entirely different word form than the same word in grade 1½. For example, "nation" in grade 2 using an "n" followed by the two cell contractions for "ation" contains only three braille characters, whereas "nation" written in grade 1½ contains six characters.

As a result of this psychological objection, aggravated probably by a certain amount of prejudices, few grade 1½ books were used in England except by students and other avid readers who were willing to tolerate the annoyances of grade 1½ for the sake of being able to read certain titles not available in grade 2.

Some of the younger blind men in Great Britain as early as 1929 began urging that something be done to meet the Americans part way in order to bring about a uniform braille code. In that year the writer, who had then been appointed the executive director of the American Foundation for the Blind, stopped in London on his way to an International Conference on Work for the Blind in Vienna. He found that the British authorities were willing to make a few modifications to grade 2 if these modifications did not involve any particular inconvenience to their readers. They were also willing to consider the dropping of a few signs which were originally included because of their frequency of recurrence in religious literature, such as the sign for "Christ," etc. It was apparent, however, that few concessions would be made to appease the American reader.

The author, upon his return to the United States, launched a campaign among blind people to sell the idea that uniformity was worth one more sacrifice. It was pointed out that so long as there was lack of uniformity between the British and Americans, the subject was

bound to keep cropping up. Mass meetings of the blind were held all over the country. Thousands were addressed on the subject. It was most gratifying to find how large a proportion were willing once more to undergo the inconvenience of learning a new system for the sake of stopping the waste resulting from duplication.

Perhaps the most cautious among those interested in the subject were the seeing superintendents who controlled the American Printing House for the Blind. When they learned that the executive director of the American Foundation for the Blind was in England sounding out the British authorities on the possibility of making some concessions to bring about the adoption of a uniform type, a committee of the American Printing House, the board of trustees, composed principally of men who were also trustees of the American Foundation for the Blind, sent the director a cable, a copy of which does not seem now to be extant. However, the substance of the cablegram, which was concocted at a meeting in Louisville, Kentucky, was as follows, "We are not sure what you are doing in your effort to bring about international braille uniformity, but whatever it is, please desist." Fortunately for the director's peace of mind the cablegram did not reach him until his conferences with the British authorities were over.

At the World Conference on Work for the Blind held in New York in 1931 some of the British delegates expressed themselves as interested in greater braille uniformity. There were many informal discussions of the subject between the American and British though nothing official was done. The fact that during that year the United States Federal Government began an annual appropriation of $100,000 to meet the cost of printing books

for the adult blind was probably not without influence with the more canny British representatives of the blind. Therefore, when the formal approach to a new consideration was made by the American Foundation for the Blind the British were ready to receive the Americans with cordiality but not prepared to make much in the way of concessions.

In 1932, public opinion had shifted to such an extent that a committee of three was appointed, commissioned both by the American Association of Instructors of the Blind and the American Association of Workers for the Blind to go to England with plenary powers to agree upon a uniform braille code.

On July 19, 1932 the agreement sometimes referred to as the Treaty of London was signed by the representatives of the blind of Great Britain and of the United States. A key to the slightly modified code was drawn up in London before the committee adjourned. The burden of the job was borne principally by Louis W. Rodenberg of the American committee and Miss D. A. Pain in behalf of the British.

What changes were made by this agreement? Not many, so far as British braille was concerned. The more or less valuable religious signs were dropped so far as general usage was concerned though they were permitted in religious books. Publishers were directed to be more careful about not bridging syllable divisions with contractions. Roman numerals were to be followed by a period, not an apostrophe. Capitalization was made optional with the publisher. The British two-dot capital sign and the one-dot italic sign were interchanged. The British raised little objection to switching the capital sign

and the italic sign because in general they didn't intend to make much use of them anyway.

Grade 2 was now ready for general use in the United States. The Library of Congress, which pays for the publication of most of the braille books embossed for blind adults in the United States, adopted the new grade 2 immediately.

The Treaty of London was confirmed by the American Association of Workers for the Blind at its meeting in Richmond in 1933, and by the American Association of Instructors of the Blind in St. Louis, Missouri the following year. The American Printing House adopted the Standard English braille grade 2 for its junior and senior high school textbooks.

Upon the unsubstantiated dictum that the use of contractions makes bad spellers, and upon the contention that grade 2 contains so many contractions and abbreviations that it is too difficult for the primary pupil to learn, the authorities of the American Printing House were very slow to publish lower grade books in any code more contracted than grade 1½. Gradually, however, grade 2 was extended downward until since 1950 few books except for children of the first grade are published in grade 1½. This slow adoption of Standard English braille grade 2 has probably resulted in a generation of poor braille readers, because the method of teaching reading has forced children to familiarize themselves with three successive groups of word forms; first, the word form presented to the finger by grade 1 (full spelling) used in the lower, primary grades; second, the word form of grade 1½ used in books below junior high school; and third, the word forms of grade 2 in which books to be used by most adults are printed.

During all this discussion, great hopes were held that uniformity would prevent duplication and bring about a cooperation among American and British publishers that would make the available funds purchase much more extensive libraries. It was hoped that in some way some kind of physical exchange of books would be worked out. As a matter of fact, while the Treaty of London was being negotiated a representative of the American Printing House and a representative of the Library of Congress went to London to discuss with the braille book publishers of that country methods of exchange of books. The basis of exchange was agreed upon, but were never carried out in more than a token fashion. Some few books were exchanged, and in a few instances the braille plates of one country were loaned to the printing houses of the other country so that books could be printed without the actual exchange of money. The whole matter was somewhat complicated by restrictions placed upon the British authorities in buying abroad. In America the Library of Congress has felt hampered by a prejudice against the spending of American tax dollars for British books when the same books could be manufactured in this country if enough money were paid for them; that is, if the Library of Congress, who might want ten or fifteen copies of a book, would be willing to pay enough for those books to meet the cost of making plates, the books could be made in the United States and the American money kept at home.

The printing houses for the blind in this country must bear some responsibility for the fact that this exchange did not work. They were anxious to keep their plants running at full capacity, and resented seeing part of the federal appropriation for books for the blind spent in England.

But this was not the only reason why the exchange of books never became active. The Library of Congress had hoped that the American Printing House, or some other agency for the blind, would obtain British books in exchange for American books and then sell these British books to the Library of Congress. As the American Printing House and other American braille publishers had no desire to tie up their money in stocks of British-made books which they had no binding assurance would be purchased by the Library of Congress, nothing was done about it.

This whole matter could be solved by the Library of Congress if it would face the criticism of a policy of spending money abroad and would purchase such of its required books from England as are already published in braille in that country.

Perhaps this will not take place until someone puts behind this idea something of the drive which brought about the adoption of a uniform type for the English-speaking world. Doubtless, sooner or later, someone will take this matter up aggressively and put an end to the duplication of books published in braille in the United States and Great Britain.

In this connection, it may be contended that British-made braille books will never be as popular in the United States as they could be until British publishers print their books properly capitalized as judged by standards for inkprint books.

We in America have been critical of the British for not collaborating with the Americans in the development of a uniform type for the blind people of both the British Empire and the United States. The Americans, however, have not been entirely without blame. For example, as

early as 1902 Dr. F. J. Campbell, later Sir Francis Campbell, wrote a letter in behalf of the British Braille Committee to the American Association of Instructors of the Blind which was meeting in Raleigh, North Carolina. It read in part as follows: "During the last week in April a large and influential conference was held in London under the auspices of the Gardner's Trust for the Blind. . . .

"Among many subjects which were discussed at the conference the great need of a uniform system of reading and writing for the blind was felt to be of such importance that a representative committee was appointed to carefully consider the methods now in use in this country and in America, and to adopt, if possible, some system which from its simplicity and general excellence would be acceptable throughout the English-speaking world.

". . . We hope that your conference may result in great benefit to the blind in the United States, and we welcome the opportunity of commending to you this difficult problem which we have been requested to consider.

"We trust that the convention will appoint a representative committee to correspond and exchange views with the English committee, in the hope that our joint deliberation may finally evolve a system which will be acceptable to both countries. . . .

"The adoption of one system of point writing for the English-speaking world will cheapen books and bring the embossed literature of America, the United Kingdom and Colonies into common use among the blind. . . ."

This letter was sent to Mr. John E. Ray, Superintendent of the North Carolina School for the Blind and given by him to Mr. Benjamin B. Huntoon, recording secretary of the association. Dr. Campbell said at the 1907 conven-

tion of the American Association of Workers for the Blind that he learned later that Mr. Huntoon and Mr. Wait, chairman of the executive committee of the American Association of Instructors of the Blind, thought it better to put the letter away without reading it to the convention.

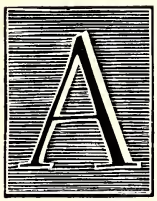
Thus, both sides were at fault during the long struggle for a uniform type for the blind for the English-speaking world.

PROGRESS IN BRAILLE EMBOSSING

SINCE 1900

Dr. Irwin was Director of the Bureau of Research and Education of the American Foundation for the Blind from 1923 to 1929, during the time in which the investigations into interpoint printing of braille and succeeding experimentations were carried on.

Embossed printing for the blind has always been a very expensive process. The world of the blind owes a considerable debt of gratitude to the group of men who labored so faithfully to bring about a very substantial reduction in the cost of printing for the blind.



FTER the invention of the braille stereotype-maker which made possible embossing from metal plates, Dr. Edward E. Allen of Perkins Institution and his printer, Frank C. Bryan, continued to study the possibility of further lowering the cost of punctographic printing and reducing the bulk of embossed books. Experiments were also carried on at the New York Institute for the Education of the Blind under the inspiration of William Bell Wait and at the American Printing House for the Blind under the direction of Benjamin B. Huntoon.

Since the days of Valentin Haüy, who printed the first books for the blind in Paris, France, embossers of books for the blind were troubled by the fact that the reverse side of the page from that read by the blind was not used. Haüy and some of his successors for a century or more bound their books in such a way that the thickness of the page was doubled and the embossed pages laid back to back in the volume.

Sometimes this was accomplished by pasting the pages together, sometimes by merely folding them. This accomplished little, and since the left hand page is never quite as easy to read with the fingers as the right hand page the convenience of blind people was sacrificed primarily to make books for the blind look a little more like those printed for seeing people.

In both Great Britain and the United States experi-

ments were conducted in interlining, that is, embossing on one side of the page with the lines a little further apart than necessary for convenient reading, and by embossing on the opposite side of the page between the lines on the first side. This was done at Overbrook, at the New York Institute, and at the American Printing House for the Blind in Louisville.

Several methods of doing two-side printing were tried out. One was printing from a single plate embossed on both sides and attached to a corrugated roller. Another method was embossing on both sides of a single plate and printing with a soft rubber roller which would not only permit the paper to be embossed by the raised dots but would also force the moist paper into the pits in the metal sheet. The latter case proved to be a failure because the trapped air in these pits prevented the dots from filling the entire cavity. Thus, the resulting dots were of irregular size. A third way and the one finally adopted with improvements, was folding the thin metal plates on which the original embossing was done and stamping the dots through the two sheets produced by folding. Paper could then be inserted between the two folded sheets, run through a press and both sides printed at the same time. Fairly satisfactory printing was done this way, and by so doing nearly a third more printing could be done with the same amount of paper.

Some experimentation was also conducted in what is called interpointing, that is, embossing on the reverse side of the page in such a way that the dots on the reverse side appeared between the lines and also between the dots on the first page. Theoretically this could be done without spreading the lines any further apart than was necessary for normal printing or spreading the dots any more

than was necessary for one side printing. Experiments had been conducted at Overbrook with this method of printing and in 1898 a small book had been embossed in this way.

Experience with this form of interpointing, however, showed that the dots embossed on one side of the page damaged to some extent the dots on the other side of the page. For one reason, the machinery used for embossing was not sufficiently precise to make a perfect register. For this reason attempts to do interpointing were abandoned for some years and attention was concentrated on improving the interlining.

Interpointing was done in Great Britain and other European countries during this period, but damage to letters on the opposite side of the page was obviated by spreading the dots somewhat, especially in a vertical direction. The reason why printing of this kind was not very popular in the United States was probably partly due to the fact that American braille was not quite as well adapted to a vertical spreading of dots as was European braille.

The Matilda Ziegler Magazine for the Blind, however, which was started in March 1907, was because of its large circulation somewhat more concerned about economizing on paper than upon a highest possible degree of legibility. For the sake of getting more printed material in a magazine of a given number of pages, the readers were willing to sacrifice something in facility of reading. But the interpointing in the ephemeral *Ziegler* magazine was not considered of a sufficiently high quality to warrant printing permanent books in this way.

Furthermore, there was opposition to the use of interpointed books in the schools for other reasons. It is ex-

tremely hard to read interpointing by sight because it is difficult to distinguish by the eye between raised dots and the depressions or pits of the dots on the opposite side of the sheet. Seeing teachers, therefore, found interpointing objectionable in textbooks. It was also contended that the pits between the lines and between the dots were sufficiently noticeable to the touch to cause some difficulty in finger reading. However, embossing on both sides of the page effected something like a forty per cent saving in bulk and theoretically nearly as much in cost.

The matter was the subject of considerable discussion down to 1923 when the research department of the American Foundation for the Blind was set up. The new department was looking around for a significant research problem with which to launch its activities. Reduction in cost and bulk of braille books seemed the most challenging subject to tackle.

Tests were undertaken immediately to determine to what extent good interpointing would retard reading. It was assumed that machinery could be developed which would emboss equally well on both sides of the sheet. Test sheets were prepared consisting of groups of nonsense words and straight reading matter. Blind people were brought into the New York Public Library one at a time and asked to read aloud while a trained observer timed the reading and noted errors and indications of hesitation. The subjects read the same material both on interpointed sheets and on sheets printed on one side of the page. The results showed practically no difference in the relative legibility of the two styles of printing.

Where there was some apparent difference, it indicated that the interpointing was read with slightly less speed

but with slightly more accuracy. Apparently, those who were not familiar with the interpoint reading material were distracted to some extent by the pits between the lines, but this slowing down seemed to give more time for careful reading.

It was concluded, as a result of these tests, that interpointing well done would in practice affect neither speed nor accuracy after the reader had had a little experience with reading it.

The research director of the Foundation decided that if interpointing and one side printing were equally legible, the savings in bulk and cost of manufacture far offset any inconvenience interpointing might cause seeing people. The question then seemed to be a mechanical one —how to develop a machine which would do the best possible interpointing.

In order to stimulate interest in this subject, the American Foundation for the Blind took Mr. Edgar E. Bramlette, Superintendent of the American Printing House for the Blind, and Mr. Frank C. Bryan, Superintendent of the Howe Memorial Press in South Boston, on a tour of visitation to the leading printing houses in Europe. Visits were made to London, Edinburgh, Paris, Marburg, Hannover, Steglitz, Leipzig, and Vienna. The committee returned from Europe convinced that there was no braille printing machinery in existence which operated with sufficient precision to make consistently good interpointing.

The American Foundation for the Blind then turned to the Carnegie Corporation and asked for a grant of money to enable it to develop the required machinery and also develop a better braillewriter for manuscript purposes. Through the good offices of Dr. Keppel, President of the

corporation, a grant of $75,000 was made to set up an experimental shop.

A French-Swiss mechanic, assisted by an ingenious young American, was employed to undertake this development work. A precision stereotype machine and a braillewriter utilizing some of the features of the Hall Braillewriter were developed which could be manufactured at a reasonable cost.

About the same time, a new braille printing shop on the Pacific Coast, known as the Universal Braille Press, managed by a blind man by the name of J. Robert Atkinson, was working on the problem of interpointing. He also developed a machine which would emboss on metal plates with sufficient precision to do good interpoint. However, his machine lacked some of the merits of the American Foundation for the Blind machine in that it was 50 per cent more expensive and somewhat less sturdy.

However, Atkinson cooperated with the American Foundation for the Blind in printing some books in interpointing in order to demonstrate that interpointed books could be made without increasing the line space or the space between the dots, and still have letters that were equal to those printed on one side of the page.

The arrangement was that Universal Braille Press would manufacture the books regardless of cost and the American Foundation for the Blind would meet the expense. The belief was that after thoroughly acceptable books had been embossed, much of the criticism of interpointed books would be eliminated and attention could then be given to perfecting the process sufficiently to take advantage of the savings made possible by this method of printing. Though the first books were quite expensive, the final result, after a year or two, was that through in-

terpointing the bulk of braille books had been reduced by upwards of forty per cent and the cost by almost as much.

Meanwhile, the American Printing House for the Blind had been experimenting with various methods of doing interpointing with machinery developed in its own establishment. With a change in management of that institution it eventually adopted the machinery developed by the American Foundation for the Blind. Both the machines and the methods have been improved as the years passed and today no one would think of going back to one-side printing.

The development work carried on by the American Foundation for the Blind in connection with perfecting interpointing cost about $75,000. The economy effected by this method has, since 1935, saved the taxpayers of this country more than $75,000 annually, not to mention the reduced cost per volume of library space for the rapidly increasing number of braille books.

Furthermore, elaborate presses for printing embossed type have been developed so that today several hundred copies an hour may be produced on large cylinder presses. The metal plates embossed on the stereotypemaker are capable of pressing thousands of copies. The plates may be filed away in much less room than is required for ordinary type or even stereotyped plates for inkprinting.

LIBRARIES FOR THE BLIND

The present library service for the blind in the United States stems from legislative action taken by the Federal Government in 1931. The history of the conditions and events that led up to this legislation and of successive developments is here told in detail by one who lived and labored through it all. Dr. Irwin's name will always be indelibly associated with the story of books and reading for the blind.

The libraries for the blind have considerably expanded their services over the last few years. A change of significance occurred in 1952, one year after Dr. Irwin's death, when an amendment to the Pratt-Smoot law made these services available also to blind children over the age of five years.

BOUT the turn of the century several local libraries in the United States began responding to demands from blind people for library service by making modest beginnings at establishing libraries for the blind. They bought collections of books in raised type and gave them a certain amount of local publicity. In their eagerness for something to read, local blind people borrowed, and read with avidity, the few volumes available. Unfortunately, the supply of books in raised type which the libraries could purchase was extremely restricted. Aside from a few volumes of religious literature, about the only books which could be purchased were those embossed for school use.

Through the small annual allowance to the American Printing House for the Blind from the Federal Government, the schools had gradually built up a small list of classics for the high school pupils in the residential schools for the blind. This was augmented by a substantial number of titles published in American braille by the Pennsylvania Institution for the Instruction of the Blind and by the Howe Memorial Press.

About seventy-five libraries had started collections, the most active of which were the New York Public Library, the Chicago Public Library, the Free Library of Philadelphia, the Library of Congress, the New York State Library at Albany, the Cleveland Public Library, the California State Library, and two special libraries—the

one maintained by the Cincinnati Library Society for the Blind, and the library of Perkins Institution for the Blind.

Soon the blind people in these communities had read all the embossed books in their local libraries. Blind people in places remote from the libraries having departments for the blind found it impossible to call for embossed books personally, and even though the library might be willing to mail books to them, the sightless prospective borrowers could not afford to pay the necessary postage.

Among the libraries which were most active in promoting circulation by mail were the New York State Library at Albany, the New York Public Library in New York City, the Chicago Public Library, and the Library of Congress. Perkins Institution also was very attentive to requests, especially those coming from former graduates.

The library departments for the blind at first attracted much public attention. When, in time, they seemed neglected by sightless readers, who soon had read the entire collection, the library authorities gradually lost interest in these departments. Books which had first been displayed conspicuously in the front room of the library found their way gradually to a back room, then to the attic, and then to the furnace. New readers might drop into the library to borrow a book but could find no one readily available who even knew where the books were. Letters which came from hopeful readers asking about library service, or requesting the privilege of borrowing books, received little attention, as most public libraries in those days carried on very little mail order business. As a final irony, blind people were pronounced uninterested in library service.

In 1904 the Federal Government had stepped in by extending free mailing privilege to libraries wishing to lend books to sightless borrowers who could not call at the library. The libraries with a sustained interest did not restrict their lending to the district in which they regularly served seeing people. Some of them loaned books in several states, others included the entire country in their service district. It was evident, however, that there could be no great expansion of library service for the blind for most libraries, as the bulk of their borrowers lived outside of the taxing district supporting the establishment.

In 1928 the American Library Association asked the American Foundation for the Blind to make a study of the library needs of blind people and how they were being met. Careful study showed that some blind people were borrowing books from several libraries. Eliminating duplications, it was evident that less than 10,000 blind people in the United States were making any use of any library. But, worst of all, the libraries that wished to purchase books for their blind patrons had a distressingly limited source from which such books could be obtained.

Publishing for the blind was not a commercially profitable undertaking. Even if the seventy-five libraries having some slight interest in the blind could have pooled their purchasing power, their combined appropriations would be insufficient to justify even a nonprofit organization to publish many books. In 1911 the Howe Publishing Society for the Blind was organized in Cleveland, Ohio to raise money locally to produce in braille current literature which was being read and discussed by seeing people. This organization carried on for fifteen years or more but eventually ceased braille printing when the inauguration of interpointing made it necessary to pur-

chase new expensive machinery required for such embossing.

The American Foundation for the Blind, with its advisory committee from the American Library Association, finally recommended that the Federal Government undertake to supply free books for the blind to a selected list of geographically well-distributed libraries, on condition that these libraries take care of the circulation in given zones without reference to whether or not these zones included an area larger than the taxing district maintaining the library.

The subject was under considerable discussion at the time, and the plan of having the Federal Government carry the burden of supplying books met with general approval wherever there was any interest. The Universal Braille Press in Los Angeles became interested in this potential new market for braille books. The concern, however, was the personal property of its manager, J. Robert Atkinson. Realizing that any federal appropriation for braille books would not likely be made to a privately owned company, he set up a nonprofit organization known as the Braille Institute of America, intended to handle government orders and distribution of books paid for with government appropriation, with the tacit understanding that the Braille Institute of America would purchase its books from the Universal Braille Press.

With little knowledge on the part of the Universal Braille Press and the American Foundation for the Blind as to what the other was planning, they both had bills before Congress dealing with the subject. For the Foundation, Mrs. Ruth Pratt, Congresswoman from New York and Senator Smoot of Utah introduced bills into the House and the Senate respectively authorizing an appro-

priation of $100,000 annually to the Library of Congress for books for the blind, such books to be deposited in regional libraries which would handle the circulation. Mr. Atkinson on his part arranged for Congressman Crail of Los Angeles to introduce a bill which would provide $100,000 annually to be appropriated to the Braille Institute of America for the purchase of braille books to be distributed to regional libraries throughout the country in proportion to the number of blind readers they might muster.

The Pratt bill was referred to the Committee on the Library, and the Crail bill was referred to the Committee on Education. Hearings were held before both committees, and an unfortunate amount of acrimony was engendered. The backers of the Crail bill felt that the American Foundation for the Blind had tried to thwart their plans to build up a big braille publishing house on the Pacific Coast.

The Committee on Education reported the Crail bill with an extensive printed account of the hearing, but it never reached the floor of Congress. Helen Keller was among the prominent people who appeared before the Committee on the Library in behalf of Ruth Pratt's bill. Consequently, the Pratt bill was reported out favorably by the Committee on the Library and was immediately placed upon the unanimous consent calendar. It passed the House, and Senator Smoot took it up actively in the Senate, where it passed and was signed into law by President Hoover on March 3, 1931.

The act merely authorized the appropriation. It required considerable effort to get the appropriation committees of the House and Senate to make the $100,000 available.

At that time the American Printing House for the Blind was receiving an annual appropriation of $75,000 for school books for the blind. The backers of the Pratt-Smoot bill wanted to make it entirely clear that they had no desire to interfere with the long-standing allowance for school books of the American Printing House. In order to allay any fears of the new law, the word "adult" was inserted in the bill, specifically indicating that books published with Pratt-Smoot law funds were for the adult blind of the country, not the school children. This word "adult" has made trouble since, as it has made it impossible for juvenile readers whose intellectual interests were frequently equal to those of adults, to borrow books printed with Pratt-Smoot law money. Sooner or later this will probably be corrected, as there is no longer any misgiving on the part of the American Printing House for the Blind about the encroachment of this appropriation upon the grant for school books. As a matter of fact, the American Printing House for the Blind manufactures, on a contract basis, many of the braille books printed under the Pratt-Smoot law. This makes available for school purposes many books of value to junior and senior high school readers. (*See chapter introductory remarks.*)

Those unfamiliar with the field of work for the blind are often surprised at the zealousness with which the interests of the braille printing houses are guarded by their friends. Sometimes one feels that no commercial concern would fight more fiercely for a privileged position. When in 1934 the American Foundation for the Blind requested Congress to include Talking Books as well as embossed books in the list of publications to be manufactured under the Pratt-Smoot law, the American Printing House for the Blind feared that sound-reproduction books

might supplant braille and in some way injure its position. At that time the Printing House was not certain that it could successfully manufacture sound-reproduction records. This resulted in an interesting situation which the author, at the risk of expanding this chapter too far, will describe.

The request that the Pratt-Smoot law be amended to include Talking Books passed the House without difficulty. When it reached the Senate there was apparently no opposition. The author, who was carrying the burden of securing the enactment of this amendment, passed through Washington on the morning the bill was coming up for consideration at an executive session of the Senate Committee on Education and Labor. From his hotel he called the clerk of the committee to learn the status of the measure. He was then told that while the committee would probably act favorably upon it, the chairman had received that morning sixteen telegrams of protest.

After hearing the list of persons from whom the telegrams had come, he reported to the clerk that they were all from managers of braille publishing concerns or members of their boards of directors. This brought him an invitation to attend the executive session of the committee, a rather unusual procedure. He demonstrated the Talking Book machine before the senators, and Senator Davis of Pennsylvania, who had a blind brother, asked if there could be any objection to the bill. The chairman remarked that there had been no opposition except from the braille publishers. Perhaps fortunately, the members of the committee did not realize that these were nonprofit organizations. One committee member remarked that opposition from this source seemed quite under-

standable, and moved that the bill be approved. His motion was carried unanimously.

Most of the authors of these telegrams have now gone to their reward, but the telegrams still repose in the national archives as evidence that, even in the field of work for the blind, institutional interests are sometimes allowed to take precedence over the welfare of the blind.

The advent of the Talking Book more than doubled the number of borrowers from the libraries, until today there are in excess of 35,000 blind Talking Book readers, as compared with some 9,000 braille readers. Talking Books are much more expensive to manufacture than are braille books, but as they are the only source of reading matter for a large number of blind people who have lost their sight in adult years the increased expense is well justified.

The appropriation for books for the blind has gradually increased over the years, until today the authorized appropriation has grown from the original $100,000 for embossed books to $200,000 for embossed books and $925,000 for Talking Books and Talking Book reproducers, making a total of $1,125,000. While the full $1,125,000 has never been appropriated, the grant never has fallen short of $1,000,000 and there is little opposition even among the most zealous of the economy-minded lawmakers.

The first proposal to Congress for the financing of Talking Books was a suggested appropriation in 1935 of $75,000 in addition to the $100,000 for embossed books specified in the original Pratt-Smoot bill. Even after the committee had recommended its passage, opposition came from the Wisconsin School for the Blind, which then had a close family connection with the office of the

American Printing House for the Blind. When the matter came before the Senate, Senator LaFollette of Wisconsin said he had it on good, disinterested authority from his state school for the blind that the Talking Book was a new, untried frill, and he opposed any encroachment upon the braille appropriation for this purpose, even as an experiment. Senator Smoot, who was guiding the bill through the Senate, promised that the Library of Congress would spend nothing for this purpose out of the current year's appropriation. It was then about the first of March, and the current appropriation would lapse on the thirtieth of June.

The author, realizing that Senator LaFollette might also oppose future legislation on behalf of the Talking Book, called on him and asked for an opportunity to demonstrate the machine to him. Senator LaFollette said he was not interested and was too busy. However, he never did oppose any future appropriation for Talking Book records.

The Talking Books were received with so much enthusiasm by readers that the librarians in the various departments for the blind were swamped. Formerly the lending time for braille books in most libraries had been a month, with renewal privilege for another month, and often no objection was raised to still further extension of time. Talking Books, on the other hand, were often read and returned within two days. This set a speed for the librarian which was breath-taking. Unfortunately, the local libraries had their budgets pretty well set and there seemed to be no way of getting relief from this new pressure. The librarians, however, met this situation cheerfully, as they usually do, and worked long hours to satisfy the demands of their readers. As a matter of fact,

most of them were quite enthused over the sudden burst of interest in their departments.

Unfortunately, library managements have never fully recognized that the Talking Book has not only doubled and sometimes trebled the circulation, but that Talking Books also require more attention than braille books. When a Talking Book is returned, it must be inspected for damage, scratches, etc. and the records placed in consecutive order, before the books are put back on the shelves. Sometimes if a reader has borrowed two books at a time he mixes up the records, and librarians must be on the lookout to see that the records of the *Imitation of Christ* are not mixed with those of *Goodnight, Sweet Prince* as has been known to happen.

When the Pratt-Smoot bill was passed authorizing the appropriation of $100,000 annually to the Library of Congress for braille books it was up to the librarian of that establishment to work out a plan for easy and rapid distribution. Either the Library of Congress could handle the circulation itself or it could, as the law permitted, set up depositories throughout the country. The latter plan was chosen.

Then came the question of how many depositories should there be; what libraries would be willing to assume responsibility for circulation of books provided by the Federal Government; what cooperating libraries would be in a satisfactory geographic location to give prompt service?

Now that books were to be provided freely by the Federal Government, progressive librarians saw certain public relation advantages in having a department for the blind which, as they saw it, would cause them little additional expense. It was then up to the Librarian of Con-

gress to select the regional libraries. It was at first believed that fifteen regional libraries, properly located, would be the optimum number. However, there was so much pressure for depository assignments that the Librarian of Congress finally authorized twenty-seven, in addition to the Department for the Blind of the Library of Congress itself. This resulted in such anomalous situations as two depositories in Washington, D. C., two in the state of New York, two in Ohio, two in Illinois, two in California, and only one in the region south of the Ohio River and east of New Orleans.

Gradually it dawned on the librarians that while they were getting free books from the government they were incurring considerable expense for circulation, and one or two cities which had clamored to become depositories and had not hesitated to use a little political pressure, later asked to be relieved of the responsibility. The burden has now become so great on some of these libraries, who have long since forgotten that they at one time met the cost not only of circulation but of purchasing books too, that some other plan of financing these departments will probably need to be worked out. The federal authorities, who realize the burden, have hesitated to recommend that the Federal Government meet the entire cost of operating the branch libraries; first, because it would be hard to supervise the financial side of the operation, and second, because there might be a tendency on the part of lawmakers in Congress to reduce the appropriation for books by at least part of the cost of running the regional depositories. Possibly some day a plan will be worked out by which the states will meet the cost of operating the regional library serving their blind population. If it were practicable to have a depository in each

state, it would be easier to get this kind of cooperation, but the number of borrowers in any one state is seldom large enough to justify the minimum cost of operating satisfactorily one of these depositories.

In the present situation state pride seems to make it difficult to get a state appropriation toward meeting a share of the cost of operating a branch library for the blind located in another state even though this might cost less than one-third of the amount it would take to operate a branch within its own boundaries.

A depository library must not only receive and ship books but it must give personal service in the way of answering letters about books, keeping records of books that each reader has already read so that he will not inadvertently be sent the same book two or three times when he, as many readers do, writes in and says; please send me another book. These libraries not only need to know what books the blind person has already read but also be somewhat familiar with the reading taste of each of the borrowers. This involves knowing something about his background, the kind of books he seems to express enthusiasm for, etc.

The Library of Congress has many problems to face, not the least of which is the selection of subject matter. We sometimes view with great satisfaction the fact that we now have over 2,000 titles on Talking Book records. But when we consider that the reading population of a town of 25,000 people frequently has a library containing 15,000 or 20,000 titles, one must admit that the United States blind population of over 300,000 has grounds for complaint when it is offered a library list of Talking Books of only about 2,000 titles. It must be borne in mind that reading tastes of blind people are as

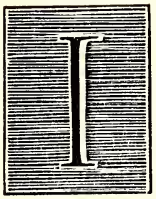
broad as those of seeing people. The available choice of reading matter is restricted to an extent which seeing people would not tolerate in their public libraries.

This situation will be somewhat improved in time if the government appropriations continue at the present size so that more books are added each year. Also, certain needs are being met by adding to our libraries an evergrowing number of books recorded directly by good men and women who voluntarily give their services to read aloud to the blind people on some kind of recording machine. These records at present are not entirely satisfactory. They are often poorly recorded and poorly read, and the Talking Book machine designed for regulation Talking Books is not always suitable for such records and often destroys a book the first time it is read. But these matters will gradually be corrected as the librarians, readers, and blind people gain more experience.

THE TALKING BOOK

The twentieth anniversary of the Talking Book was celebrated in 1954. In this short span of time it has come to occupy in the lives of many blind people the position of an indispensable friend—a friend that is always at their disposal, always ready to read to them at their convenience; a friend that has succeeded in opening to many of the blind new intellectual worlds of profit and pleasure.

Dr. Irwin was one of the first among workers for the blind to foresee the great possibilities of the Talking Book. He was always very enthusiastic about the new reading medium, and put all his drive and energy behind its development.



N THE late nineteen-twenties when studies were being made of the relative legibility of braille embossing on one and two sides of the page, investigators were amazed to find what a small percentage of the blind population in New York City were able to read with their fingers at all. While the average speed of finger reading in some of the schools for the blind was about sixty words per minute, it was necessary for the investigators to accept people whose speed of reading was as low as twenty words per minute, in order to conveniently get a sufficient number of adult subjects to make the tests.

This drove home to thoughtful students of the subject the limitations of embossed literature as a medium for reading by the blind. It was evident that some other medium must be found. The new approach proved to be that of sound and thus, in time, Talking Books came into being.

Probably every slow finger-reader had long dreamed of having books recorded on phonograph records so that he would absorb the subject matter without making any more conscious effort than did his seeing associates. Experiments had been carried on with the Dictaphone as a medium for teaching spelling, and for some other work, in the day schools for the blind in Cleveland, Minneapolis, and probably in other places. A study of the subject made by the author also revealed that the use of the

phonograph as a medium for providing literature for the blind had occurred to Thomas A. Edison as early as 1877 when he filed his first patent on a talking machine, the "Tinfoil Phonograph." Edison, however, never followed up this idea, probably because he saw no commercial benefit from exploiting this application of sound-recording.

Back about 1930 nearly all phonograph records for home use turned at the rate of 78 revolutions per minute. Electrical transcriptions for broadcasting purposes, usually made on sixteen-inch discs, were being recorded at the rate of 33⅓ revolutions per minute. However, the Radio Corporation of America had experimented with some twelve-inch records for home use at 33⅓ rpm. This project had been abandoned mainly because the pick-up arms (which mounted the needle) were so heavy that they destroyed the records within a very few playings.

The Edison Laboratories at Menlo Park, New Jersey, were approached by the American Foundation for the Blind on the subject of carrying on experiments with the recording of literature on records, but nothing came of it. The expense of conducting experimental work at that laboratory, or at any other commercial laboratory, was beyond the resources of the Foundation. Therefore, an application was made to the Carnegie Corporation for a grant of $25,000 to finance experimental work in the development of a twelve-inch record which would have a playing time sufficient to make books issued on phonograph records practicable.

When deciding upon the processes to be used in recording Talking Books for the blind every possible method of recording had to be taken into consideration such as lateral recording, hill-and-dale recording, record-

ing on films, recording on wire. Other questions had to be answered; if the material was to be recorded on discs, at what speed should the turn-table revolve; should the usual method be employed of having the turn-table revolve at the standard speed, or should advantage be taken of a suggested method of recording by which the turn-table speed varies gradually, making it possible for the material to pass under the needle at a constant velocity known as constant linear velocity recording.

Shortly before the appeal was made to the Carnegie Corporation, a William Corbett, who had had some experience in recording had been interested by the Foundation in the subject. He put the agency in touch with Lincoln Thompson, an engineer living in Bridgeport, Connecticut, who had access to a recording studio belonging to the estate of a wealthy man, who, before his death, had played around with recording as a hobby. In this studio Mr. Corbett and Mr. Thompson and representatives of the American Foundation for the Blind made a few experimental records and demonstrated to their satisfaction that fifteen minutes of acceptable speech recording could be made on a twelve-inch record revolving at 33⅓ rpm. The demonstration of one of these records before Dr. Frederick Paul Keppel, President of Carnegie Corporation, convinced him and his board that the matter had sufficient merit to justify a grant of $25,000 to the American Foundation for the Blind. Jackson O. Kleber, an engineer from the staff of Electrical Research Products, Inc., popularly known as ERPI, was employed in 1932 to set up a modest laboratory and conduct some experimental work. The objective of this laboratory was to perfect a long-playing record which would reproduce a satisfactory quality of recorded reading matter at a

cost which would make practicable the recording of books.

The laboratories of the Radio Corporation of America had developed a record material mix which contained some abrasive mixed with vinylite which was sufficiently flexible to withstand the jars encountered in transportation and would not break if dropped on the floor. At the same time it was sufficiently tough to last through from fifty to seventy-five or more readings when the proper needle was used and was changed in accordance with instructions.

It was decided to make the records about 80/1000 of an inch in thickness. This seemed the optimum thickness required for durability in transportation and convenience in the press feeding during manufacture. There has been a general trend, however, toward thinner records which are easier for the blind to handle and which would impose less strain on frail readers when they are handling a dozen or more records at a time. The thinner record also has the advantage of a saving in raw material cost.

One element of cost which had not much concerned the commercial studios was that of manufacturing the master records from which other records were made. The difference of $50.00 to $100.00 in the cost of making a master record meant little to a commercial organization which expected to turn out from 10,000 to 50,000 copies from this master record. It was realized from the beginning, however, that the demand for copies of a recorded book for the blind would probably not be much more than one hundred copies of any one title. Under such conditions, a difference of $50.00 in the cost of making the master record would mean a difference of 50¢ on each disc. Accordingly, attention was

first directed toward getting a maximum of reading matter on each disc at a minimum of cost. One way of increasing the number of words on a record was to have it revolve at a slower rate of speed. Various speeds were considered, but it seemed best to adopt a speed of 33⅓ rpm, since motors for phonographs playing such records would soon be available on the general market because of the tentative interest which commercial concerns had already shown in recording at that speed.

The size of the records was important. Experiments were made with records thirteen and fourteen inches in diameter, but the twelve-inch record was selected for several reasons, principally because pressing dies for this size record were available, and a twelve-inch record seemed to be the largest which could be stored conveniently on shelves in common use. Later experience has shown that ten-inch discs are so much more conveniently handled than twelve-inch discs that the American Bible Society has re-recorded the entire Bible on ten-inch records. The Library of Congress has experimented to some extent with records of this size and found them popular. In the light of experience, economy would seem to be the only justification for making records over ten inches in diameter.

Further experiments showed that recording could be done on a record with grooves closer together than those generally used. A pitch of from ninety to one hundred grooves per inch was in common use. It was found that a good quality of recording for speech purposes could be obtained from records recorded at a pitch of from 150 to 200 per inch. Great care had to be taken, however, to record in such a way that the subject matter in one groove could not be heard while the adjacent

grooves were being played. This faint sound coming from the adjacent grooves is known among recordists as echo, or is sometimes called "ghost." The higher the pitch (or number of grooves per inch), the greater becomes the difficulty of guarding against echo. The high pitch of recording reduces the material called "land" between the grooves. There is a tendency, therefore, for this land to break down causing repeating during reproduction.

All things considered it was decided that 150 grooves per inch was about the optimum pitch to be used. More recently, with the advent of lighter pick-up arms and greater skill of recording, it has been found possible to increase this pitch to 175—even to 200 or more—grooves per inch. Experience may make it possible to increase the pitch to substantially over 200 grooves per inch.

It was decided to begin the recording on the outer edge of the record because blind people were more accustomed to playing ordinary phonograph records that way. In an effort to obtain as much satisfactory reading material as possible on a twelve-inch record it was found that when the needle was placed on the groove at the outside of the record a very satisfactory reproduction was obtained by lateral recording. This reproduction deteriorated as the needle approached the center. Down to an eight-inch diameter very good reproduction was obtained. From eight inches in, the quality rapidly fell off until, with the instruments available at a reasonable price in 1932, the quality at the four-inch diameter was reduced to the minimum acceptable for Talking Book records. This was due largely to the speed with which the sound groove passes under the needle. More recently, recording methods have been improved so that eventually books may sometime be recorded down to a three-inch

circle. However, the space requirements of the braille label will always limit the size of the inner circle somewhat.

When the record revolves at 33⅓ rpm the speed of the needle at the four-inch diameter is about seven inches per second. When the intelligibility of reproduction is the only thing to be considered, a needle passing through the groove at a greater speed is simply a waste of groove length. It had to be considered whether or not it was possible to produce a machine which would pass the record under the needle at seven inches per second from the time it was placed on the outer edge of the record until it reached the four-inch diameter. If the passage of the needle through the groove could be kept at a constant seven-inch speed it would require about thirty-three minutes for the needle to pass the full length of the approximately 2000 inches of groove of a twelve-inch record cut at a pitch of 150 grooves per inch.

For many years inventors had struggled with this problem. Bell and Tainter patented a machine for playing such a record in 1886. The method of recording was known as constant linear velocity recording. Though Bell and Tainter patented such an instrument they never produced a machine which would do the job satisfactorily under any but laboratory conditions. Several other inventors attempted to accomplish the same end without success. It was decided by the engineer of the American Foundation for the Blind that it would be unwise for its laboratory with its limited funds to attempt to solve the problem which had caused so much expense and failure to other inventors. Constant linear velocity therefore was abandoned.

An inventor living in Los Angeles persuaded J. Robert

Atkinson, Managing Director of the Braille Institute of America that he could develop a satisfactory, inexpensive and thoroughly practical constant linear velocity machine. It was argued that if this method could be applied satisfactorily, it would reduce the cost of manufacturing Talking Books by something like fifty per cent. In view of this Atkinson felt that before recommending the establishment of Talking Book libraries the Foundation should more thoroughly investigate this recording method. He protested vigorously against the Foundation's decision to disregard the constant linear velocity method and had an experimental machine built which he called the Readaphone.

In order to settle the matter once and for all the Foundation invited the two gentlemen from California to come to New York, at its expense, and demonstrate the Readaphone before a jury of outstanding engineers appointed by the Radio Corporation of America, Bell Laboratories and two or three smaller concerns. This jury witnessed the demonstration, examined the machine carefully and reported that the Readaphone was no better than any of the other machines which had been offered to manufacturers many years before and pronounced failures. However, blind people had been thoroughly aroused by Atkinson's publicity on the subject. Dr. H. H. B. Meyer, Director of Project, Books for the Blind of the Library of Congress, therefore, finally made the following announcement in the *Outlook for the Blind* for April 1935:

"Judging from the letters received here, there seems to be a good deal of apprehension on the part of blind readers all over the country that we are to be precipitated into a fight between rival reproducing machines for the

use of the blind, the Readaphone and the Talking Book, a fight similar to the struggle over embossed types of several decades ago.

"Let me assure the blind readers through the medium of the *Outlook for the Blind* that the Library of Congress will not take part in any struggle, which can only work to the disadvantage of the blind.

"We shall not furnish the distributing libraries with any records which cannot be reproduced on the Talking Book machine of which so many hundreds have been put out by the American Foundation for the Blind. Under existing circumstances to do so would be worse than merely foolish. The demand for records for the Talking Book is so great that our appropriation is not large enough to meet it.

"If at any time a machine is put on the market which is universally admitted to be so superior to any in use as to justify substituting it for all others in use, we shall again join in the movement for something better for the blind."

It is interesting to note that the Audograph, an office machine for dictating purposes has more recently been developed utilizing the constant linear velocity principle. However, this machine is quite expensive and it is doubtful if an inexpensive machine giving high quality reproduction could even yet be built.

The Talking Book for the blind was based on the principle of the long-playing phonograph record on which Frank L. Dyer, the inventor, had obtained a series of patents. At the time when the American Foundation for the Blind recommended the establishment of Talking Book libraries, law suits were pending in which Mr. Dyer was trying to force the Radio Corporation of America and

other record manufacturing concerns to pay him a royalty on radio transcriptions recorded at the rate of 33⅓ rpm. Mr. Dyer's patent was clear enough on the subject, but the commercial concerns claimed that this was not a patentable principle, and later he lost his case.

Meanwhile, however, the American Foundation for the Blind had no desire to be involved in this litigation which might cause long delay and expense. The author approached Mr. Dyer on the subject, and he agreed to give the Foundation—and later, the American Printing House for the Blind—free right to use his patent in making records for the exclusive use of the blind. Mr. Dyer imposed only one condition, *viz.*, that every Talking Book record that used his patented method should bear the legend "Isabelle Archer Dyer Memorial Record" in honor of his deceased wife. In spite of court action invalidating the Dyer patent the American Foundation for the Blind continued to place this inscription on the record labels throughout the life of the patent.

Other kindred difficulties arose. Before Talking Books could be recorded, it seemed desirable to clear the matter with the copyright owners. The Book Publishers' Association and the Authors' League were approached on the subject. The Authors' League readily recommended to its members that they give the publishers of Talking Books for the blind the privilege of recording their works free as had long been done in the case of publishers of embossed books. The Book Publishers' Association, feeling that any control of copyright material was very doubtful after it had been on a record, was a little more cautious. One prominent book publisher said that the book publishers had seen very valuable rights to make moving pictures of their literature practically given

away, because the book companies had not realized this great source of potential income. They were not proposing to throw away any other valuable rights.

After long deliberation, however, the executive board of the Book Publishers' Association voted to recommend to its constituent members that they give the nonprofit book publishers for the blind the right to record any copyright material upon the payment of a token fee—$25.00 per book—which was divided between the publisher and the author. It was stipulated, however, that every book should carry in inkprint as well as in sound recording the words "Solely for the use of the blind." It was further stipulated that such records should not be sold to seeing people or played over the radio.

These negotiations were somewhat complicated by nervousness engendered by the fear of braille book publishing concerns that the Talking Book might eventually put them out of business. This proved to be an ungrounded fear as braille book publishers have as much business today or more than they had before the advent of the Talking Book. As a matter of fact, the largest braille book publisher in the country, the American Printing House for the Blind, has set up a Talking Book manufacturing department rivaling that of the Foundation. The Printing House has also contributed substantially to the development of methods of reducing the cost of Talking Book manufacture.

With the technical and legal difficulties largely solved, the American Foundation for the Blind approached the Federal Government with a proposal that it add the circulation of Talking Books to its library service to the blind.

A complication in the development of Talking Book

libraries was the fact that Talking Book records could not be reproduced on the standard home phonograph in common use at that time. A special phonograph costing upwards of $40.00 to $50.00 to manufacture was required. When the representative of the American Foundation for the Blind appeared before a congressional committee urging the appropriation of a substantial sum of money for the establishment of Talking Book libraries for the blind, he was embarrassed by the question, "How many blind people would be in a position to read these books if they were placed in the libraries?" He had to admit that at that time no blind person owned a reproducer known as a "Talking Book machine." Too many blind people are poor, and why should they spend their meager resources for Talking Book machines when there were no Talking Books to play on them? The guardians of the public treasury very properly replied, "Why should the government make Talking Book records available if there are no blind people equipped to use them?" This was a vicious circle which had to be broken in some way.

The representative of the Foundation then responded that he would raise the money privately for twelve hundred machines during the current year, if Congress would appropriate $75,000 for Talking Book records. This was a challenge which was accepted by the lawmakers, and in spite of protests from the nonprofit braille publishing concerns, Talking Book libraries were started.

The Junior Women's Clubs of New Jersey and other organizations were approached for help in raising money for the purposes of buying Talking Book machines and lending them to would-be blind readers. When the year rolled around and it was time to consider another federal

appropriation, it was possible to report that fifteen hundred blind people were equipped with Talking Book machines. From that time on, little difficulty was experienced.

It would have been extremely difficult to raise money for the 15,000 or 20,000 Talking Book machines which soon were needed, because in the 1930's in the depth of the depression it was not easy to find money for what looked to the average man on the street like luxuries. However, advantage was taken of conditions which grew out of the depression itself. It was proposed that a Works Progress Administration project be set up on which Talking Book machines for the blind would be manufactured. It seemed reasonable that the manufacture of Talking Book machines would be a much more justifiable use of federal relief money to provide employment than would the raking of leaves in the parks, or some of the then famous boondoggling projects. The difficulty was that in the cost of manufacturing a Talking Book machine, only about one-third represented direct labor. The WPA managers had adopted the principle that at least seventy-five per cent of the cost of a WPA financed project should go to labor. While everyone agreed that the manufacture of Talking Book machines was a worthy one, it was necessary to appeal to President Roosevelt himself to get it authorized. In this appeal, Major M. C. Migel, Helen Keller and Mary Hun were most instrumental.

After a long series of negotiations requiring over a year, Harry Hopkins' name was finally placed upon the authorization of a Talking Book machine WPA project which was sponsored by the Library of Congress and supervised by the American Foundation for the Blind.

Three hundred unemployed persons were put to work in New York City in February 1936. Of the three hundred more than fifty were blind. Chester C. Kleber, later General Manager of National Industries for the Blind, was placed in charge. It was a fortunate choice of management, because Kleber had a flair for handling difficult operations requiring the cooperation of government officials, common labor, technical men and the general public. On this project more than 20,000 Talking Book machines were manufactured. These machines, which were legally the property of the Library of Congress, were loaned free of charge to blind people to whom it would seem a burden to purchase a Talking Book machine. It was pointed out that few seeing people would use the public libraries if in order to do so they had to purchase a special pair of glasses costing $40.00. The Library of Congress was always liberal in its interpretation of need in this case.

In time, these WPA-made Talking Book machines gradually wore out. The Library of Congress then accepted the principle that free Talking Book library service called for free Talking Book machines. The WPA machines in time were replaced by new ones manufactured on a contract basis for the Library of Congress. About the only restriction which was placed upon the lending of Talking Book machines was that the borrower must be blind, under a definition of blindness prescribed by the Library of Congress, and also that the borrower must make a reasonable amount of use of the library.

At first the definition of blindness used by the Library of Congress was as follows, "Suffering from a defect of vision which makes it impossible or unsafe to read ordinary printed books." Later, as the demand for Talking

Book machines greatly exceeded the supply, this definition was tightened up a bit, to coincide with the definition used in administering relief in most states by the social security agencies. The reading materials provided by the Library of Congress are now available for loan without charge to residents of the United States, its territories, and insular possessions whose central visual acuity is 20/200 or less in the better eye with correcting glasses or whose field of vision at its widest diameter subtends an angular distance no greater than 20 degrees.

This definition of blindness may be too narrow as it excludes a considerable number of people who, though they have some vision, are unable to make any practical use of inkprint books.

There has always been a certain amount of demand that Talking Book libraries be available to people with good sight who, because of physical conditions, are unable to hold an inkprint book in their hands, such as hopelessly crippled persons, invalids confined to their beds in such a way that they must lie constantly on their backs, etc. Several bills have been introduced into Congress which would open Talking Book libraries to such people. These bills have, to the date of writing, all failed for various reasons; first, the difficulty of defining who is eligible to use such books; second, the fear on the part of copyright owners that the privilege which they were willing to extend to the blind might be abused by persons who would be potential customers for inkprint books; and for other reasons, important among which is the fact that no one knows how many readers this might add to the already over-burdened staffs of the libraries for the blind.

How should the records be packed for mailing? This

required more experimentation than the average person realizes. The container must be as light as possible and at the same time stand such rough handling as tossing from the top of a mail truck to the pavement and the like. Various kinds of sheet metal were experimented with but finally fibreboard with metal corners was selected. These boxes were strapped shut in much the same fashion as containers for laundry that are to be shipped through the mail. The depth of the box was determined with the convenience of the reader and the postman in mind. It was decided that a gross weight of fifteen pounds was about all that could be conveniently handled. This is probably too heavy for many elderly readers and advantage should, therefore, be taken of the present possibility of getting as much material on a thin ten-inch record as was formerly recorded on a twelve-inch record.

An economical method of marking records in braille had to be developed. Braille of the standard size was selected with a minimum of wording indicating title, author and *reader*. Indicating the reader is important because it has been shown that the choice between two titles is often made by the borrower on the basis of the reader. Some Talking Book readers are as popular among blind Talking Book users as are movie stars among the cinema goers. Blind visitors to the American Foundation for the Blind get a tremendous thrill out of meeting such popular readers as Alexander Scourby, John Knight, John Brewster, etc. The voices of these readers are as well-known in the homes of thousands of blind people as are the voices of their most intimate friends.

Much study was given to the question of the speed of reading. After conversations with radio commentators it

was decided that the speed of reading fiction should be between one hundred sixty and one hundred seventy words per minute, whereas with material requiring closer attention such as the Bible or scientific works, the reading should be possibly as slow as one hundred fifty words per minute.

Studies made with Talking Book readers showed that "listener fatigue" diminished as the quality of reproduction became more and more like that of the human voice. It was decided that while it might seem more economical to hire a staff of one or two readers, as is done in England, to read all books, this plan was rejected for several reasons. First, a studio would be crippled if the staff reader contracted a bad cold making his voice unusable for several days. Furthermore, it was found that a much more artistic result was obtained when the quality and character of voice was considered in connection with each book. Some voices are well adapted to reading scientific material requiring little inflection or interpretation, other books are much more interesting when read by a reader who puts some enthusiasm into his reading. While women readers' voices usually do not reproduce well, a story told by a woman in the first person seems much more appropriately read if done by a feminine voice. *Jane Eyre* is a good example of why books of this type should be read by a woman rather than by a man with a deep voice. *The Diary of a Provincial Lady* is a good illustration of the incongruous effect of the wrong book being read by a man.

The work of William Barbour in choosing specific readers for certain Talking Books over a period of several years added greatly to the pleasure derived by readers of these books. His casting of readers for specific works

did much to set the tone for Talking Books in this country.

Talking Book studios for the most part draw on readers from radio personnel. While using nonprofessional volunteer readers might save a little money the disadvantages of using them outweigh any economy that might be so effected since the reader's fee constitutes less than ten per cent of the cost of making a record. Few voices record well; perhaps not five per cent of the applicants to the American Foundation for the Blind for reading assignments can pass the voice tests. Furthermore, most volunteer readers are not dependable about reporting for duty on time, and if a studio with expensive equipment and staff is kept waiting for a volunteer reader who must be handled with much tact, considerable money is lost.

Radio actors rather than announcers were selected for reading because announcers seldom have the talent for voice expression that good radio actors possess. It was found that many radio actors of high quality could be employed at very reasonable rates because they could work in the studio of the American Foundation for the Blind during hours that did not conflict with their radio engagements which usually come in the evening. AFRA (American Federation of Radio Actors) has been most considerate about permitting its members to read Talking Books for the blind. The actors, on their part, have felt that in this way they have been able to cooperate with the nonprofit Talking Book studios in making the government appropriation produce a maximum number of titles with the limited funds available.

In a very few instances authors have read their own books in entirety. Jan Struthers, author of *Mrs. Miniver*,

very kindly read all of this book. However, few authors have the voice or a special talent for reading. Frequently, the Talking Book studios, especially that of the American Foundation for the Blind, have arranged with the authors to read the first chapter of their books or specially prepared introductions. It was felt that in this way the reader would come into more intimate contact with them. Eleanor Roosevelt (*This I Remember*), Thomas Mann (*Buddenbrooks*), and W. Somerset Maugham (*Of Human Bondage*), are among those who have read introductions or parts of their books.

One of the most popular well-known personalities who has done reading for the Talking Book was Alexander Woollcott. He was tremendously interested and very kindly volunteered to read, without charge, some of his works such as *While Rome Burns,* and other books of which he was particularly fond. He was temperamental, though, and the entire staff of the Talking Book department of the American Foundation for the Blind stood in fear of an explosion whenever he came to the studio to read. However, his artistry, even though it might result in nervousness among the members of the technical staff, resulted in some of the most fascinating reading for the blind.

Dialogue reading using two or more voices was never tried out as it was deemed unnecessary to so add to the expense of production. It was felt that after all a Talking Book is not a drama and few books are written to be read in this way. However, some fifty plays have been recorded with cast. They are extremely popular among library borrowers, but the expense of recording dramas with good actors has deterred the Library of Congress from having as many plays done in this way as the blind

people would like. We hope that some time the various problems resulting from technical difficulties and the rules of the Actors Equity Association will be ironed out and more plays, especially prepared for broadcasting or suitable for recording, will be made available for libraries for the blind.

What is the future of the Talking Book for the blind? Is the disc the best form to be employed? From the beginning, film recording was considered by Mr. Kleber and other interested engineers. As a matter of fact, the possibility of film eventually replacing the disk has held back to some extent the all-out development of Talking Book libraries in Great Britain. However, as yet the technical problems connected with film Talking Books have not been solved. Some of these problems are; first, the expense of multiplying books from master recordings; second, the expense of reproducers, which is to date much higher than that of disc reproducers; third, the difficulty of manipulating film reproducers.

There is in almost every home of a blind person at least someone who has operated a phonograph. Most blind people have themselves done so at some time or other. This makes it very easy for a blind person to learn to operate a Talking Book disc machine. It would be somewhat more difficult to teach him to operate a film reproducer.

Furthermore, films have a way of getting broken, which would introduce repair problems in already overburdened libraries for the blind.

In the early experimental days wire recording as a method of making Talking Books for the blind was also investigated but soon discarded by the American Foundation for the Blind laboratory as impracticable. The

reproducers cost too much money and it was believed that wire would cause too many complications both for readers and librarians. It is too difficult to refer back to any particular spot of the wire recording and the permanence of such recording is questionable because of the tendency to demagnetize and because of the increase of background noise as time goes on.

In later years recording on tape has been brought to the foreground. This type of recording at first glimpse offered real advantages over wire recording, in being easier to handle and less subject to breakage, and in providing better fidelity or tone quality. In addition, it is possible to record several bands on a single reel, and by employing an even number of bands the recording would end at the start of the reel, eliminating the delay of rewinding.

Much experimentation has been carried on with tape recording in this country and abroad. So far, the disc is still considered superior. It might be mentioned, however, that Talking Books are now first recorded on tape and later re-recorded on discs for the use of the blind.

Most Talking Book records produced in the United States are made by the American Foundation for the Blind and the American Printing House for the Blind in Louisville, Kentucky. The Printing House has been somewhat handicapped by competition from the American Foundation for the Blind in the Talking Book field because of the fact that New York City affords a much wider selection of part-time reading talent than does Louisville. On the other hand Louisville has long been a low cost city so that technicians and other employees can be hired in Louisville much more cheaply than in New York. The Library of Congress deliberately has divided

its orders between the Printing House and the Foundation in order to keep the two organizations competing with one another to reduce prices and increase quality.

There is an unfortunate lack of cooperation between British and American Talking Book libraries. The British experimented with the development of Talking Book records even before such experiments were carried on in this country. Lieutenant-Colonel Sir Ian Fraser, Chairman of St. Dunstan's for Men and Women Blinded in War Service, in London, is much interested in all kinds of electronic equipment. He experimented with the recording of literature on Talking Book records many years ago, before the days of the magnetic "pick-up." He abandoned the idea because of the difficulty of getting sufficient subject matter on a single record.

At one time, in discussing the honor of priority in this field, he remarked to the author that we might fairly divide the credit because, as he claimed, Britain had made the first Talking Book record but America had made the first Talking Book book.

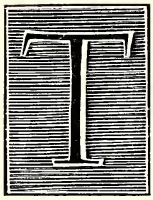
In the effort to extend the playing time of the records the British authorities did not have the compunction that the American engineers had about breaking commercial standards. They finally adopted a record revolving at the rate of twenty-four rpm and recorded at a pitch of 200 grooves per inch. These records, though they did not, at least in the beginning, have the quality of the American records, did have the merit of playing some twenty-five minutes per side of the disc, as compared with fifteen or sixteen minutes on the same size of American discs. In America Talking Book machines were produced which would play not only American records but also the 24 rpm British records, but they required some

careful adjustment to shift from 33⅓ to 24 rpm which seems to have been too difficult for the average home reader. Besides, there was some objection to the British accent used on these records, and they never became very popular in the United States. The British machines are more easily adjusted to play 24 or 33⅓ rpm records at will. The British, who have been conditioned to the American accent through the cinema and otherwise, seemed to have little objection to American Talking Books, so that practically all records made in America are available to the British readers. Effort should be continued to bring the United States and Great Britain together on this subject so that there is not the wasteful duplication of records which is now going on between the two countries.

The number of blind people possessing Talking Book machines and the list of Talking Books available in the libraries for the blind in Great Britain have not matched those in the United States, partly because the British libraries are still dependent upon private philanthropy for this service. Furthermore, there is a reluctance on the part of some British home teachers about introducing their clients to the Talking Book until they have mastered braille. They feel that when a newly blinded person finds that he can read without acquiring a knowledge of braille he will not go through the arduous process of learning touch reading and writing.

PERIODICALS FOR THE BLIND

There are at present close to two hundred braille, two Moon type, three New York Point, and four Talking Book periodicals published in the United States. They represent various types, ranging from general news magazines to those devoted to special subjects, to religious publications, to current events papers for school use, to house organs of various kinds, etc., including three periodicals published especially for the deaf-blind. Dr. Irwin's time was too short to give coverage to all of them, or to make a representative selection of a few from each group. His special leaning toward historical research made him turn first to the early pioneers and to their efforts at providing periodical reading matter for the blind. He knew well the problems that made these early efforts difficult and sometimes impossible of success. With the passage of time the situation has changed somewhat and financial backing has been found for the present large number of periodicals for the blind.



HE HISTORY of periodicals for the blind began in 1867 when a publication appeared printed in linetype using capitals and lower case letters in a special system, devised by Napoleon B. Kneass of Philadelphia. In 1890 it was brought out also in New York Point. It was known as the *Kneass Quarterly Magazine for the Blind* and contained articles of general interest and a few pages of advertising. This was read eagerly by blind people. Even every word of the advertising was read carefully by most readers. However, the subscription price was pretty high for blind people, especially in those days when dollars were particularly difficult for sightless people to come by. The magazine was very thin, but most welcome to those who could afford it. It had only a few hundred subscribers.

Mr. Kneass continued to pioneer in the field of periodicals for the blind by establishing in 1876 *Kneass's Philadelphia Magazine for the Blind*, and in the same year *Kneass's Music Journal*. All of these magazines had ceased to appear about the turn of the century, but they represented a new approach to reading material for the blind.

Another pioneer in the publication of periodical literature for the blind was Joseph Gockel of Milwaukee, Wisconsin. In 1900 he began the publication of a current events magazine, *The Weekly Review*, which was continued for a little over thirty years. About 1916 he

also started a small Catholic magazine, *The Lux Vera.* There was a short period when the two magazines were merged into one. After a time the current events section was discontinued but *The Lux Vera* was published until Mr. Gockel's death in 1941.

The magazines were first printed in New York Point, but changed to braille about 1930.

Mr. Gockel was always a devout Catholic. In missionary circles he obtained some prominence in his diocese. He was a man who stood very high among the blind and was much thought of by all who were acquainted with him.

History was made in the field of periodicals for the blind with the establishment, in 1907, of the *Matilda Ziegler Magazine for the Blind.* This history is also the history of Walter G. Holmes.

In 1906, Mr. Holmes, a young man on the editorial staff of the *Memphis Commercial Appeal,* went to New York and Boston to consider an offer which he had received from the Hearst Publications. While there he contacted his friend, Paul Block, and seriously considered entering into an advertising business with this gentleman. While these matters were under consideration, Mr. Holmes read in one of the New York papers a notice of the probating of a will leaving a substantial sum of money to various charities, not including the blind. Mr. Holmes, who had a blind brother slightly older than himself and for whom he had a great affection, wrote an open letter to the paper, asking why someone did not leave a bequest for the benefit of the blind. Not intending to pursue the matter, Mr. Holmes did not wish his address published, but it was inadvertently done.

Within a few days he received a letter from Mrs. E.

Matilda Ziegler, wife of William Ziegler of Royal Baking Powder fame. Mrs. Ziegler, who had a blind son and who had read Mr. Holmes' open letter, expressed her interest in his thought and inquired about any specific ideas he might have. She signed only her initials E. M. Z. and gave her address. A meeting ensued in which Mr. Holmes suggested the need of a magazine for the blind. After considerable discussion Mrs. Ziegler agreed to set up and maintain such a magazine, to be sent free or practically free to sightless people under one condition, Mr. Holmes must be its editor. Mr. Holmes then had about decided to go into what later proved to be a very profitable advertising venture with Mr. Block. After some thought he agreed to edit Mrs. Ziegler's magazine for the blind on a half-time basis for an extremely modest salary. As a matter of fact, Mr. Holmes never went on with his advertising business and gave full time to the magazine for the rest of his life. Mrs. Ziegler was an extremely modest benefactor and at first refused to permit her name to be used in connection with the proposed magazine. It was only after the most insistent urging on Mr. Holmes' part that she yielded to his suggestion that it be named *The Matilda Ziegler Magazine for the Blind.*

After visiting Europe in search of machinery for printing braille which might be suitable for the production of a magazine for the blind with several thousand subscribers, he returned to the United States, took the matter up with manufacturers in this country, and developed a high-speed cylinder press especially adapted for printing in raised type. This machinery was unlike anything then used, either in this country or abroad, and its quality is attested to by the fact that today it is still in operation and turning out braille printing of high standard.

Mr. Holmes decided to bring out the magazine in both New York Point and American braille. After consultation with Mrs. Ziegler they agreed upon charging ten cents a year subscription price. They felt that while any blind person might write in and ask for the magazine, whether he ever read it or not, he might think a second time about sending a ten cent subscription fee. On the other hand, it was felt that the subscription fee would not exclude anyone because of the difficulty of raising a dime. Later, the ten cents part of the transaction was eliminated in order to take advantage of the postal law permitting magazines for the blind to be sent through the mails postage free when no subscription charge was made.

The *Ziegler* magazine was a tremendous boon to blind people. At last, a periodical resembling that received by their seeing friends was coming into their homes each month. The mailing list soon climbed to upwards of 10,000, an unheard-of number for a magazine for the blind anywhere in the world.

From the beginning Mr. Holmes made up his mind that he would issue a journal which would be within the intellectual range of the blind man and woman of the most modest educational attainments. This magazine, from the beginning, contained a digest of the month's news, a short story, a popular scientific article, a little verse, a few jokes, and some article of encouragement to the blind people themselves. It never allotted any great proportion of its space to organized work for the blind, but for many years it contained a department variously called "Suggestions for Success," "Experiences and Suggestions," and "Successful Blind." These were usually letters from blind men and women who had overcome their handicap of blindness in a modest way and were making

a modest living. In this section Mr. Holmes deliberately gave little attention to the attainments of brilliant men and women. He felt that the ordinary, garden variety of success would be more stimulating to most of his readers, as what such people had been able to accomplish, others with moderate talents could also do.

The magazine also endeavored to keep blind people abreast of the development of special appliances for the blind which may be useful in everyday life. Because of the ephemeral nature of the publication the management always felt that it could experiment with various ways of presenting embossed type, such as interpointing, interlining, etc., and even sometimes with modifications of the braille code. If the experiments proved unpopular or unsuccessful, little harm was done, because the magazine would be thrown away, and, after a month or two, forgotten. It would not be turning up time and again in the libraries to plague future readers, as would be the case with volumes of standard literature.

Perhaps the most interesting and influential department in the *Ziegler* magazine is the editorial column which Mr. Holmes in his tenure called the "Publisher's Chat." This column consists of a page or two of homely comment by the editor which is read systematically by thousands of blind people who perhaps seldom read the rest of the magazine.

Mrs. Ziegler was true to her word and met all the expenses of operating the *Ziegler* magazine throughout the balance of her life. When she died she set up a foundation of upwards of three-quarters of a million dollars, the income from which is used to meet the cost of running the *Ziegler* magazine, though the terms of the charter

would permit the use of the income for almost any purpose beneficial to the blind.

Mr. Holmes, who started out on a modest salary on a half-time arrangement, refused to accept very much of an increase in this salary for the rest of his life. Throughout his editorship of the magazine, which continued until his death on February 7, 1946, Mr. Holmes was deemed the most beloved worker for the blind in America. He understood the common man and woman without sight and always had time to stop and discuss personal problems with any blind person who called at the office. He was patient and genial with everyone and sincerely interested in everything that bade fair to further the welfare of sightless people.

The *Ziegler* also started supplying special watches for the blind at wholesale prices or less, and for many years it has supplied typewriters and alarm clocks marked for touch reading and other especially useful items at substantial discounts under the retail price, and has given many hundreds of radios to blind people who could not afford to buy them.

The whole atmosphere of the *Ziegler* magazine has been one of practical, unpretentious, kindly service, avoiding at all times anything that smacked of formality of professional welfare work. Mr. Holmes scrupulously avoided anything controversial. One time he did come out with a blistering editorial denouncing a private agency for the blind which, in his considered opinion had opposed legislation on behalf of the blind, because it feared the effect on the welfare of the organization, though the legislation was well calculated to further the interests of the blind of the state. No organization work-

ing with blind people could afford many such attacks from this source.

When Mr. Holmes died suddenly in 1946, the world of the blind was plunged into deep sorrow at this loss. The *Ziegler* magazine, however, has continued to appear under the editorship of his successor, Howard M. Liechty, mainly in the tradition established by its founder.

The desire of blind people to obtain news information was recognized by a blind graduate of Perkins Institution, Francis B. Ierardi, who founded *The Weekly News*. Already during the first world war when he noticed that the blind were sensitive to relying on seeing people for national and world news, Mr. Ierardi decided that there was a need for a weekly braille newspaper. He started its publication in 1927 with just enough money to operate for three months, with a circulation of only two hundred around Boston. Later he solicited money from friends and today his "project" is the National Braille Press in Boston, which is now housed in its own modern four-story building. The organization is very economically run by Mr. Ierardi, who was for many years employed by the Massachusetts Division of the Blind as a field worker. He has carried on the work of the National Braille Press evenings and Sundays, purely as a labor of love. He has always refused to accept any salary in spite of the fact that his salary from the state and his other personal resources are very modest.

The Weekly News gives little attention to developments in work for the blind, attempting mainly to supply to blind people a summary of national and international events from week to week. The editor has had the cooperation of such inkprint magazines as *The Independent* and *The Outlook* which have permitted their news sum-

maries to be reproduced in braille, the cooperation even extending to furnishing advance sheets to copy. Besides *The News*, the National Braille Press publishes also *Our Special*, a magazine for blind women, and *The Home Teacher*, catering to home teachers for the blind. It also does additional braille printing, including a number of periodicals, on a contract basis.

The National Braille Press makes no charge to readers of its magazines. Most of the cost of operating is met by annual contributions from all over the United States and Canada. It has always managed to avoid a deficit in its operations.

Blind people in general wish to read what is read by sighted people and wish to be informed on subjects which are discussed by them. Therefore, the braille and Talking Book editions of the *Reader's Digest* are greatly appreciated. The publication of the braille edition was originally undertaken in September, 1928 for the benefit of the schools and classes for the blind. As the pupils graduated from the schools, and as other adults became acquainted with the magazine, the demand for copies for libraries and individuals grew to overwhelming proportions, and the general public was asked to provide funds for this service through "The *Reader's Digest* Fund for the Blind," which is sponsored jointly by the *Reader's Digest* Association of Pleasantville, New York and the American Printing House for the Blind of Louisville, Kentucky. With the advent of the Talking Book, it became possible to make a recorded edition available, and the first issue appeared in September, 1939.

All copies of each edition are supplied free to the recipients. Anyone donating as much as $15.50 can name the recipient of a year's issues of the braille edition (com-

prising four volumes each month), while anyone donating as much as $32.50 can name the first recipient of a year's issues of the Talking Book edition (twelve records monthly) on condition that the records are forwarded within a period of two weeks after receipt to the nearest circulating library for the blind for redistribution to other readers. Both issues are complete reprints of the inkprint edition.

The production of the two editions now stands at over three thousand monthly for the braille *Digest* and over one thousand for the Talking Book.

The *Braille Book Review* which is now distributed without charge to blind people using the libraries for the blind, has filled an important need in enabling sightless people to know what new books are available to them in their libraries. It lists, each month, the new books published in braille or on sound reproduction records issued by the American presses. As a very small percentage of blind library patrons ever visit their libraries themselves, a publication of this kind is essential.

An advance number of the *Braille Book Review* was published in October, 1931. The first regular issue appeared in January, 1932. From the beginning until 1951 it was edited by Lucy A. Goldthwaite, who for many years was librarian of the library for the blind of the New York Public Library.

Originally, the magazine contained sixty-four pages of braille with a subscription charge of fifty cents. The periodical was started by the New York Public Library in cooperation with the American Braille Press in Paris. The size of the magazine was later reduced to twenty-four pages and the subscription charge eliminated. In 1934 the Library of Congress extended financial aid by

purchasing five hundred copies of the magazine and sending them free to blind readers. Gradually the number was increased until The Library of Congress now meets the printing cost of the entire edition going to United States readers. In 1942 the American Foundation for the Blind assumed responsibility for the editing of this publication employing Miss Goldthwaite on a part-time basis for this purpose. She continued with the magazine until June 30, 1951, after which time it has been edited by the Foundation library.

It should be mentioned that there are a considerable number of religious magazines for the blind, some of them dating back to the days before the *Ziegler*. They are sponsored by special religious organizations, Catholic, Protestant and Jewish. The oldest of these magazines in point of continuous operation is the *Christian Record* established in 1900, and sponsored by the Seventh Day Adventists. While it has a certain Adventist tone, it contains articles of general interest. It was started by blind people and has always employed a rather large proportion of sightless people in its production. The *Record* is maintained by personal door-to-door solicitation.

Religious magazines for the blind as a rule carry no subscription fees. The writer believes that if a small fee was charged for them, one would know better just how many blind people read them.

As work for the blind began to come of age in this country, periodicals began to appear which were intended to inform the worker for the blind of matters pertinent to his work. These periodicals were first published in inkprint only although at the present time it is recognized that braille editions of professional magazines should also be made available.

The pioneer in this group was *The Mentor* which was started in 1891 as a monthly publication by the Alumni Association of Perkins Institution. It was edited by a blind man by the name of Joel W. Smith, father of American braille, who was then teacher of piano tuning at Perkins. *The Mentor* was designed to disseminate information regarding the needs of blind people and how to meet them. It was an interesting publication, but suspended after four years of operation for lack of financial support.

Some years later, in 1900, *The Problem* appeared as the official organ of the American Blind People's Higher Education and General Improvement Association. It was published and edited as a quarterly by Wallace McGill, a blind man who was Professor of Musical Theory and Psychology at the Kansas Conservatory of Music in Leavenworth. In the four years of its existence, *The Problem* published in its pages articles on legislation for the blind and on other subjects of interest to a group of young and vigorous blind people. It also printed the official proceedings of the American Blind People's Higher Education and General Improvement Association, the association which in 1905 became the American Association of Workers for the Blind. The last issue appeared in October 1903.

No other magazine carrying news of work for the blind existed until the establishment of the *Outlook for the Blind*, founded by Charles F. F. Campbell in the spring of 1907. This magazine was temporarily sponsored by the Massachusetts Association for Promoting the Interests of the Blind, with the understanding that Mr. Campbell would, as soon as possible, obtain other sources of support. For many years the association gave this magazine its blessing in one way or another, but the main

burden of finding financial support was shouldered by Mr. Campbell until the American Foundation for the Blind took it over in 1923.

The editing of this publication was a labor of love performed by Mr. Campbell and his wife for sixteen years. During this time Mr. Campbell labored evenings, Sundays and holidays to get this quarterly magazine out. It was only with the greatest of effort that he was able to raise the money to meet the printers' bills. For a while he carried local advertisements to help out financially, but when the American Foundation for the Blind took it over, the advertising pages were eliminated as being inconsistent in tone with the professional nature of the publication.

The *Outlook for the Blind* carried news of work for the blind throughout the world, and served as a medium through which anyone interested in work for the blind might bring his views before the public. Mr. Campbell saw to it that every new development in efforts to improve the condition of the sightless was properly presented so that others interested might be informed.

The *Outlook* converted work for the blind from local sporadic attempts to improve the lot of sightless people in scattered communities into a national movement on behalf of those without sight. It avoided controversial topics so far as practicable but never hesitated to take a stand for or against certain ideas if it seemed necessary. Through its columns Mr. Campbell had a tremendous influence on the thinking of friends of the blind throughout the country.

Probably every movement to improve the lot of blind people owes a debt of gratitude to the *Outlook* and to Mr. Campbell personally for his support. Mr. Campbell

never touched any phase of work for the blind that he did not contribute some practical idea of lasting benefit. Something of a firebrand himself when it came to combating undue conservatism, he allowed little of this controversial tone to creep into his magazine. No one will ever realize how much of his strength and zeal he gave to this publication, for which he never received a dollar of salary. When the American Foundation for the Blind was organized, he personally requested it to take over the burden of financing and publishing the journal. In justice he should have been employed as its editor. For various reasons that was not done. Conspicuous among these reasons was the fact that though his magazine had always been kept free from violent controversy, he had himself, in his zeal for the welfare of the blind, made many enemies. It seemed to the board of trustees of the Foundation unwise for the new organization to incur the wrath of certain of his enemies by adding him to its small staff.

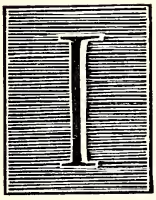
The *Outlook for the Blind* has had several editors since it was taken over by the Foundation, Charles B. Hayes, Evelyn C. McKay, Lucy A. Goldthwaite, Enid Griffis Warren Bledsoe, P. C. Potts and, at present, Howard B. Liechty who is also the editor of the *Matilda Ziegler Magazine for the Blind*. In 1942 it was merged with *Teachers Forum for Instructors of Blind Children*. It is now also published in braille, the first issue appearing in September, 1931. Since 1943 it has appeared monthly except during July and August.

EDUCATION OF THE BLIND

Dr. Irwin was supervisor of classes for the blind in the public schools of Cleveland, Ohio from 1909-1923, and part of that time supervisor of classes for the blind and for the partially sighted for various cities in Ohio. His closeness to the early movement of establishing day school classes for the blind enabled him to trace the history of this movement from the time when Dr. Howe first gave word to the idea in his speech at Batavia in 1866. We are grateful to Dr. Irwin for this history. We wish he had had time to write also about the development of the residential schools for the blind over the same period.

Blind children require for their education the application of special teaching methods as well as special equipment. Books in embossed type and Talking Books are needed as well as slates for writing braille, special devices for mathematics, embossed maps for geography, and other similar tools. Dr. Irwin has given us the story of the development of these special tools as well as comments on special teaching methods. It is of interest to note that since Dr. Irwin's death the authorized appropriation to the American Printing House for the Blind has been raised to the total of $260,000. The actual appropriation however, has always been somewhat less than this amount.

Higher education of the blind is another subject close to the heart of educators of the blind and was especially so in the early part of the twentieth century. It is interesting to see the changing philosophy from that of encouraging special colleges or advanced schools for the blind to that of having the blind student take his chances in regular colleges and universities in competition with seeing students.



N 1832 when the first schools for the blind in the United States were opened, boarding schools were considered the most desirable establishment in which a boy or girl could receive his education. Of course, we had day schools for seeing children in every part of the country but the privileged groups attended boarding schools for at least part of their school life. It was only natural, therefore, for those setting up schools for the blind to have copied the boarding school plan for the blind which they had observed in Europe.

The boarding schools also offered more opportunities for careful training and for experimentation in this new field of endeavor. By the 1860's, however, some of the educators of the blind in this country had begun to realize certain disadvantages in quartering sightless children for most of each year in a boarding school where practically all of their social experience was with children with a similar handicap.

In 1866 Dr. Samuel Gridley Howe, the first director of Perkins Institution, in his address at the laying of the cornerstone of the New York State School for the Blind at Batavia, said, "All great establishments in the nature of boarding schools, where the sexes must be separated; where there must be boarding in common, and sleeping in congregate dormitories; where there must be routine, and formality, and restraint, and repression of individuality; where the charms and refining influences of the true

family relation cannot be had—all such institutions are unnatural, undesirable, and very liable to abuse. We should have as few of them as is possible, and those few should be kept as small as possible."

In 1871, in a paper submitted to the American Association of Instructors of the Blind, he said, "With a view of lessening all differences between blind and seeing children, I would have the blind attend the common schools in all cases where it is feasible. . . . Depend upon it, one of the future reforms in the education of the blind will be to send blind children to the common schools, to be taught with common children in all those branches not absolutely requiring visible illustrations, as spelling, pronunciation, grammar, arithmetic, vocal music and the like. We shall avail ourselves of the special institutions less, and the common schools more."

It was not until 1900, however, that any formal steps were taken to make provision for blind children in the public schools in any city. Scattered instances of blind children attending public schools prior to that date could doubtless be found.

In the late 1890's there was considerable agitation in the city of Chicago to get the Board of Education to set up an institution for the blind in the city so that sightless boys and girls in Chicago should not be compelled to go several hundred miles away to the Illinois School for the Blind in Jacksonville for their education.

Those promoting the establishment of such a school for the blind naturally thought of a segregated school somewhat like the state schools in existence. Frank H. Hall, then superintendent of the Illinois School for the Blind, who had a high standing in the state as an educator, went to Chicago several times to persuade educational authori-

ties of the city not to set up a special institution, but rather to open the regular classes in the school buildings to blind children making only such special provisions for them as was necessary to enable them to carry on their work. Mr. Hall felt that through such a plan the boys and girls could grow up in contact and competition with the young people who in the future would be those with whom they would live and work. In a statement made to the committee of the Board of Education of the City of New York, March 24, 1909, he said, "Three cities have inaugurated the wise plan of teaching blind children in classes in the public school. I think the method of segregating the blind, keeping them together for twelve years, as they do in some schools, letting them forget their homes, keeping them not with the class with whom they will live after they leave school, cutting them off from society, is the greatest mistake that was ever made. The public school is the place to educate a blind boy, associating him with the people with whom he will associate when he leaves school."

John B. Curtis, a blind graduate of the Illinois School for the Blind and later a teacher in that institution, was employed as the first supervisor of classes for the blind in the public schools of Chicago. The plan which he evolved for handling this work has been copied by many other cities. It was to divide the city geographically into several large districts setting aside a room for blind children in some conveniently located building in each of these districts. The teachers placed in charge of these home rooms not only taught the pupils to read braille, the use of the typewriter, etc., but also watched their charges to see to it that they got full advantage of the education offered.

The pupils in Chicago did most of their work in the regular grade rooms, somewhat more so even than is done in most other day school classes. Mr. Curtis gave much personal attention to individual pupils in the grammar and high school grades, contributing greatly to the success of his students both while in school and in later life. He was one of the most devoted and admirable characters the education of the blind has produced in the United States. Sincerity, modesty, devotion and good judgment were his outstanding characteristics.

He was interested in every phase of work for the blind, especially those having an academic aspect. He was a valuable member of the Uniform Type Committee in its early days and later of the International Committee on Braille Mathematical Notation. For many years he did the final proofreading of books on mathematics and advanced science of all kinds for the American Printing House for the Blind. The high standard which he set for the practical application of the Taylor braille mathematical and chemical notation long had a profound influence on the correctness of books prepared for high school and college students in this country. He never sought personal honors but the manifest joy and satisfaction which he derived when the American Foundation for the Blind awarded him the Migel Medal for Outstanding Service to the Blind in June, 1945 made everyone realize how much quiet pleasure he got from recognition of the services which he performed in an unostentatious way.

In 1905 Cincinnati followed Chicago in establishing day school classes for the blind. Unfortunately, the Cincinnati school segregated its pupils in a special building. This arrangement sacrificed those advantages to blind

children which grow out of mingling and competing in school with seeing boys and girls of their own age. In 1907 Miss Carrie B. Levy, one of the teachers in the Chicago classes for the blind, was instrumental in organizing classes for the blind in Milwaukee. In 1909 Cleveland and New York opened day school classes, all following the plan of sending the pupils into the regular classes for seeing children for as much of their work as seemed practicable. In 1913 Cincinnati reorganized its classes and adopted the coeducational plan of training blind and seeing children together.

Minneapolis and St. Paul followed in 1919. Seattle opened a class in 1920 following the cooperative plan. Later it adopted the plan of segregating its blind, and largely as a result of this the children forsook the Seattle classes and went to the state institution. Since the public schools lacked much of the special equipment to be found at the state school at Vancouver, the parents decided that when the coeducational plan was abandoned much of the advantages of having the children attend the public schools had been forfeited.

In 1917 Los Angeles opened classes for blind children but soon segregated its pupils in a day school where they had little or no contact with seeing boys and girls except in their own homes.

In most cities where provision for the education of blind children has been made, sightless pupils in the high school grades attend the regular high school with no special room set aside for their use. Readers and special tutors are usually provided to read aloud books that are not available in braille or as Talking Books, and also to assist the students in such subjects as foreign languages and mathematics. The day school plan where there is not

close cooperation with the residential schools of the state has certain shortcomings. Many day schools do not provide special musical instruction or adequate manual or prevocational training.

The city of Cleveland has gone further than any other city to make good these lacks. The musical instruction is comparable to that afforded in a residential school. Pupils are assisted to take part in the manual training and prevocational training classes offered in the junior and senior high schools for the benefit of other boys and girls. At one time Cleveland conducted a training cottage for its boys and another for its girls where the pupils lived three or four days out of every week for a year or more so that they might receive training in table manners and other social niceties, and where the boys might learn to hold up their end of the household responsibilities such as shoveling snow from the sidewalks, stoking the furnace, etc., and where the girls might learn to make beds, cook their meals, set and serve the dining room table, sweep the floors, and the like.

Unfortunately, Cleveland discontinued these cottages a good many years ago on grounds of economy. This curtailment of the department for the blind was carried out by the Board of Education in spite of the fact that even with the training cottages the average per capita cost to the taxpayer of educating blind children was substantially less than educating them in the state residential school. However, the training cottages were in operation for several years, a sufficient period to demonstrate their value and the practicability of the plan.

There was once operated in Detroit at private expense a training cottage for blind girls but the Board of Education never saw its way clear to assume the entire cost

of this adjunct to the department of the blind. Accordingly, the cottage was eventually closed.

The danger inherent in day schools for the blind is lack of special supervision. Their success will not be insured unless they are in the charge of a specialist who can give his full time to supervising the teachers and planning for the training of each individual blind pupil. Too often the department for the blind, because it cares for only a small number, is made the responsibility of the supervisor of special classes in general and this supervisor seldom has much knowledge or special interest in the education of the blind.

Few cities have attempted to provide educational facilities for all of their blind children because it is felt that where the home doesn't afford wise parental cooperation it is better for the pupils to attend the residential school of the state. In the early years of the day school movement residential school managers were much perturbed over the spread of the day school program. It was feared that the plan might in some way actually supplant the residential school. However, this has never happened and in Oregon, Washington and California the superintendents of the schools for the blind have taken the initiative in placing blind children in the public schools for part of their work.

Nearly a third of the institutions for the blind make some use of public school classes. The plan is still in its formative stages but it is becoming obvious that ultimately most states will evolve some plan by which there will be close cooperation between the residential schools for the blind and the public school system. In such a program the state school becomes the center of an educational service for the state rather than the sole instru-

mentality for the instruction of blind children. In such a program the superintendent of the school for the blind inspires and supervises the training of blind children of preschool age in their homes, and arranges for the instruction of the blind children of the state under conditions most advantageous to each individual.

Where the cities make adequate provision, as in some places in Ohio, blind residents of those cities may spend most all of their school years in the public school classes. In other states, where elaborate provision has not been made for blind pupils, the institution often enrolls the blind children for preliminary training and gradually works them into the public school classes, either in the neighborhood of the residential schools or in their own home communities.

It is difficult to trace any consistent development of classroom teaching methods in the United States. Many of the schools have been isolated one from another and have therefore been slow to learn of successful methods in other places. The great majority of teachers in the schools for the blind have not been especially trained for their work. During the first twenty-five years of the century superintendents seemed to feel that almost anyone could teach blind children. Some of the schools which are justly proud today of their educational standards, a quarter of a century ago did not hesitate to place entirely untrained graduates in charge of classes for the blind who taught by methods by which untrained teachers before them had taught them. Some of these schools, in cases of emergency, would draw from their dining room staffs of waitresses to take charge of third and fourth grade classes. On the other hand, other schools as far back as the first decade of the century had on their facul-

ties many normal school graduates who were successfully adapting teaching methods for seeing children to the requirements of blind children.

Reading by word form, which some of the best teachers today are introducing as an innovation, was the subject of a heated discussion at the 1910 Little Rock convention of the American Association of Instructors of the Blind. Prominent superintendents listened with skepticism to a young teacher from Utah who told of teaching braille by word form. Only in recent years has there been any consistent progress which could be said to be a national trend in teaching methods especially adapted to the blind. Younger teachers are now for the most part drawn from teachers' colleges and follow pretty closely the educational trends of the public schools.

It can be said, however, that there has been progress made in the use of certain special appliances. It was early recognized by educators of the blind that special measures must be taken to ensure the schools the special equipment needed for the education of blind children, such as braille slates, mathematical devices, and others. Only with assistance from the Federal Government could this need be met. Therefore, the history of the efforts to secure such assistance coincides with the history of the American Printing House for the Blind.

The Printing House was organized as a Kentucky corporation, not for profit, in 1858. It was to be maintained by a special tax passed by the Kentucky legislature which made available five dollars annually for each blind resident of the state. Several books were printed at this establishment which at first was housed in the basement of the Kentucky School for the Blind.

In 1876 the American Association of Instructors of

the Blind set up a committee to work out a plan for national cooperation. It was hoped that other states would join with Kentucky in maintaining a printing house for the blind. The exigencies of the Civil War and the years that followed, however, soon made it apparent that while some money could be raised in different states from private contributions, little could be accomplished with joint state action. The Kentucky establishment was not alone, as small printing plants had long been maintained at Perkins Institution, the New York Institution for the Blind, the Pennsylvania Institution for the Instruction of the Blind, and by the Virginia School for the Blind. But joint action was not forthcoming.

In 1879 a bill passed Congress making available to the American Printing House for the Blind the interest from $250,000 worth of United States bonds which were to mature in forty years. The income from these bonds was turned over to the Printing House with the understanding that it would revise its charter so that in addition to the seven citizens of Louisville who were to act as trustees and managing executive committee, the superintendents of every public institution for the education of the blind would be ex officio members of the governing board.

The Printing House started in a very small way. In 1880 there were six or eight employees. In 1950 the staff had grown to two hundred full-time employees and fifty part-time workers. It has on its board several subcommittees, most important of which are the executive committee consisting of the local Louisville citizens, and the printing committee which selects the books to be embossed.

The first superintendent of the American Printing

House for the Blind was Benjamin B. Huntoon who was also superintendent of the Kentucky School for the Blind. Mr. Huntoon was extremely interested in the production of embossed books and devoted much of his time and genius to perfecting not only books in tangible type but also to improving and manufacturing tangible type slates, mathematical appliances and maps. Large dissected maps carved from laminated wood were the pride of the institution. Mr. Huntoon carved many of these maps with his own hands. This was a tedious job but the product was not only a superb educational appliance to those who must depend upon their fingers for their concepts, but also had much eye appeal. To the present day Mr. Huntoon has had five successors as superintendents of the Printing House. They have all been called from the ranks of superintendents of schools for the blind.

In 1906, anticipating that the original forty-year bonds would soon mature, Congress changed the authorization by continuing an annual appropriation of $10,000. In 1919 an additional appropriation of $40,000 was authorized. In 1927 this appropriation was raised to $65,000 and in 1937 to $115,000. Money derived from these government grants was used for the manufacture of books and tangible apparatus which is distributed annually among the schools for the blind in proportion to the ratio which enrollment of any one school bears to the total blind child enrollment for all schools in the country. For example, if $50,000 was available for the manufacture of books and tangible apparatus and if there were 5,000 pupils in the schools for the blind, each school was entitled to draw from the Printing House for books and other educational paraphernalia to the amount of

$10 per child. The quota of the schools is calculated every year from the enrollment that is sent in to Louisville in January. A school may either buy books and apparatus already in stock at the Printing House or it may use its quota in meeting the cost of producing entirely new books or apparatus so long as the bulk of the manufacturing process is done at the Printing House. It cannot, however, buy with its allotment books, braille-writers, or other equipment manufactured outside of the Printing House.

When the original law was passed establishing the American Printing House, "public institutions for the education of the blind" consisted solely of residential schools. Following the establishment of the first day school classes in city public schools in 1900, a need for a broader interpretation of the Act became apparent. On January 30, 1912, an opinion was handed down by the Department of the Treasury (under which Department the Act was then administered), in response to a request from the public day schools for the blind of Milwaukee, Wisconsin, stating that these classes were entitled to share in the free distribution of materials under the Act. This ruling was extended to cover the classes for the blind in public schools throughout the country, and the superintendent of each school system conducting such classes for the blind is an ex officio trustee of the American Printing House for the Blind.

With the advent of the Talking Book the Printing House turned its attention to the manufacure of this new appliance and by 1936 it was equipped to produce such books for distribution to the schools. Many of the Talking Books purchased by the Library of Congress are suitable for school use and many others are suitable for

use by school pupils for supplementary reading. The Printing House, therefore, obtained substantial orders from the Library of Congress so that it could keep its Talking Book department operating at capacity and at the same time build up masters from which records could be pressed for distribution to the schools on their government quotas.

In order to benefit from the economies of quantity production the Printing House has manufactured other books and apparatus on contract for other private and public agencies. As early as 1887 it embossed the Bible for the American Bible Society and since 1883, other religious literature for the Society for Providing Evangelical Religious Literature for the Blind. Gradually, it took on the publication of magazines on a contract basis until today it produces over fifty braille and three Talking Book magazines.

The first decade of the century witnessed a general awakening in the schools for the blind to the importance of physical education. Dr. Howe of Perkins Institution several decades earlier had given a great deal of attention to the physical development of his pupils. He stressed its importance in his annual reports, but most of the schools for the blind attached little significance to that aspect of a blind child's education.

In about 1899 Edward E. Allen of the Pennsylvania Institution for the Instruction of the Blind was able to get his school moved from the cramped quarters on Race Street in Philadelphia to a roomy campus in Overbrook, a suburb of Philadelphia. Mr. Allen had served for several years as a teacher of physical education and other subjects at the Royal Normal College in London. Sir Francis Campbell, the superintendent, was a great be-

liever in the moral and health values of developing to the uttermost the physiques of his blind students. Mr. Allen introduced many of his methods at Overbrook and gave them great publicity, especially among the schools for the blind of the United States.

An athletic team was developed in the school which competed successfully against many of the schools for seeing children in Philadelphia and vicinity. His interest found kindred spirits in the schools for the blind in Kentucky, New Mexico, Western Pennsylvania, and in other places. Athletic teams were developed whose prowess won local recognition. It was extremely difficult to bring these teams together in order to compete directly with one another but a plan was devised for holding an athletic match in several different schools on the same day. The records made by the athletes in these different schools were wired to the other schools and in this way a national track meet with each pupil competing on his own athletic field many hundreds of miles away was carried on. This stimulated a great interest in physical education. Later, track teams of blind athletes from Philadelphia, Baltimore, New York City, Batavia, Pittsburgh and other schools met and actually competed on the same athletic field. Plans for new school buildings provided for special gymnasiums adapted for the use of blind children and today the physical appearance of the pupils in the schools for the blind is far superior to that of a half century ago.

When the blind children have completed high school work or when they have reached working age and high school training does not seem indicated, the school authorities should plan and supervise their further instruction. In some cases the young blind are encouraged

to attend a university, in other cases they are assigned to the state vocational rehabilitation department for vocational training and placement.

Individual blind people of special ability, whether with or without tutors, have managed to make their way through institutions of higher learning. In the late 1890's a movement was on foot, originating in the state of Missouri, to establish a special college for the blind or special national scholarships for blind college students so that they might be helped to attend the university of their choice. This movement never found much favor, however, because experience had already shown that when a blind college student is provided with an adequate reading service and where the college authorities are willing to make reasonable adaptations of courses involving laboratory work, etc., the blind student does very well and manages to keep pace with his seeing associates.

This broadens the educational opportunities for blind people far beyond anything that would likely be offered by a special college for the blind. Furthermore, no college for the blind would ever win the prestige of a large university. A degree from a college for the blind would probably mean very little to the blind man seeking a job where college training is a prerequisite.

An effort was also made by blind people during the last decade of the nineteenth century and the first decade of the twentieth century to obtain federal government scholarships for the blind. This effort failed, however, because of the opposition of prominent superintendents of schools for the blind who seemed to feel that such scholarships were unnecessary or undesirable.

As a new approach to the subject Newell Perry, a graduate of the California School for the Blind and a

student at Columbia University, was responsible for getting the state of New York, in 1907, to set up reading scholarships for blind college students. These scholarships, administered by the State Board of Regents, provided blind people with an annual allowance for meeting the cost of reading service in the colleges and universities of the state and under certain conditions outside of the state. The annual allowance to a student for this purpose was only $300.00 in the beginning but this has gradually been increased over the years until in 1950 it was $500.00. Other states have copied this provision in one form or another until eighteen states now have such scholarships ranging from $200.00 to $900.00 maximum annual allowance. In some states it is for meeting the cost of readers only, in others it is for meeting the cost of readers plus living expenses. In some states the scholarship is only allowed a student attending a university providing the university admits him free of tuition charges. Most universities cooperate with blind students after the management understands that they are usually able to do the work required of seeing students without unreasonable special concessions.

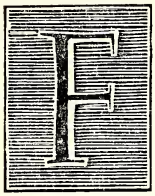
Most professional schools are open to the blind. As a result a goodly number of blind people have attained success in the profession of law, in teaching, as ministers of the Gospel, etc. Some professional fields have offered special difficulties. At one time schools of osteopathy were especially sympathetic to blind students, but unfortunately the opposition of examining boards in certain states gradually closed such schools to the blind. The Board of Regents in New York and the examining board in Pennsylvania even refused to recognize a degree for anyone graduating from a school of osteopathy which

permitted a blind person to graduate. The opposition of these boards was usually due to the prejudice of some outstanding person on the board who did not believe that a blind person could successfully practice osteopathy. As the schools of osteopathy are private establishments and in no position to fight the examining boards or boards of regents, they succumbed to this opposition. One school of osteopathy after another was closed to the blind until today there is practically no opportunity for blind people to equip themselves to practice the profession even though some of these schools for many years have had blind people on their faculties.

Blind people have also had much difficulty in obtaining training as physiotherapists. This has been largely due to the opposition of the physiotherapists' association. Had it not been for the strong public opinion behind certain blind veterans, all schools of physiotherapy would probably have followed the examples of the schools of osteopathy and closed their doors to the blind. In Great Britain the National Institute for the Blind has established a school of physiotherapy offering an excellent three-year training course. The faculty of this school contains some of the leading physicians of London and unlike the situation in the United States, blind physiotherapists in Great Britain stand well with the medical profession.

EARNING A LIVING WITHOUT BENEFIT OF SIGHT

The history of planned and organized work to provide employment for the adult blind belongs in the twentieth century. Although Dr. Irwin's training had been mainly that of an educator's, his years as Executive Director of the American Foundation for the Blind brought him in close touch with all movements aimed at increasing the vocational opportunities of the blind. Foremost among these movements were the efforts made by friends of the blind to obtain legislation which would provide vocational training and also would create new possibilities for employment. Dr. Irwin took an active part in all such efforts. His experiences with the lawmakers in Washington were arduous, long and exhausting, sometimes hilarious, but always exciting.



ROM some standpoints, modern work for the adult blind in the United States began the day the Dennison Manufacturing Company employed a blind box corner-cutter. Doubtless individual blind people before had obtained jobs for themselves in regular factories, performing processes for which the factory management was accustomed to hiring seeing people, but as far as the author knows this was the first job of its kind obtained by a representative of an organization for the blind.

Scattered instances of this kind do not make the beginning of a movement, but when that movement uses this particular job or particular incident as a precedent upon which it builds future developments, then it may be said that the work stemmed from that event.

Mr. Charles F. F. Campbell had in mind when he persuaded the Dennison Manufacturing Company to hire this blind box corner-cutter not only finding men a chance to earn a living in a normal way, but he also considered this experiment a demonstration of what could be done for the blind with the cooperation of understanding employers. Photographs were taken and lantern slides made and shown all over the state of Massachusetts. As a matter of fact, they were shown all over the country as a part of an educational program designed to familiarize the public with the idea that blind people

could fill useful places in the industrial life of any community.

This form of employment of the blind, however, did not become popular until the demands upon the labor supply of the country during the first world war made employers willing to consider blind people as potential sources of labor. The management of the Crocker Wheeler Company of Newark, New Jersey became enthusiastic over the idea and not only offered to employ blind workmen but set up a regular department for facilitating this experiment. This department was known as the "Double-Duty Finger Guild." At one time over one hundred blind employees were at work in the factory. The management was so enthusiastic over the results that the officials lost no opportunity to discuss the subject publicly at meetings where the management of various other companies was represented.

However, after the war was over and the shortage of labor ceased to exist and it became necessary for the company to reduce its force, blind people were gradually dropped along with others. This was accentuated when Mr. Wheeler died. The company has always employed a few blind people since that time, though the number has dwindled to less than a half dozen.

Other concerns which were conspicuous for employing blind people were the Ford Motor Company and the National Cash Register Company. Henry Ford was especially proud of his employment of blind and partially blind people. He paid them the regular minimum wage that he paid the rank and file of seeing people. In 1944 he was awarded the Migel Medal for Outstanding Service to the Blind not only because of the number of blind

people he had employed, but because of the example he had set other employers.

Many other companies, too numerous to mention, have employed blind people more or less regularly. However, placement agents have questioned the wisdom of locating more than two or three blind employees in any one factory. If the number is kept small, adjustments can be readily made when processes change or when the demand for labor fluctuates. After the second world war the Radio Corporation of America adopted the policy of employing one blind person for each thousand of its employees. Another manufacturing concern which acquired some local reputation for employing blind people was the Upson Nut Company, of Cleveland, Ohio. In this plant certain processes were set aside to be done by blind people when they were available. One of these processes was testing the threads in nuts and bolts. The testing process consisted of screwing a nut onto a bolt and packing them in boxes.

In most instances, blind people were seldom employed by any company except upon the intercession, or at least the guidance, of a placement agent in the employment of an organization for the blind. However, the Upson Nut Company became so well known as an employer of the blind that blind people arriving in town and wanting a job would often head directly for the company, line up in the employment office, and get a job without any intercession by a social worker. This ability to find a job without having to apply to a philanthropic concern was a source of great gratification to many independently-minded sightless men.

Though Charles F. F. Campbell, for several years ex-

ecutive head of the Massachusetts Commission for the Blind, seems to have been the first to conceive and put into operation the placement of blind people in regular factories, side by side with the seeing, some of his fellow workers for the blind were pessimistic about the future of this method of employment. Miss Florence Birchard, his successor in placement work with the commission, followed Mr. Campbell in finding employment for many blind individuals in factories with seeing people and in other kinds of jobs not usually considered available as outlets for blind labor, such as domestic service. Charles W. Holmes, a fellow member of the staff of the Massachusetts Commission for the Blind, however, felt that some workers for the blind had become too optimistic about factory employment as an opening for blind labor, and he issued a rather pessimistic report on the subject in 1919.

Later, a new man came into the picture, who had unbounded faith in the opportunities which the regular factory held for blind people. He was so enthusiastic upon the subject and such a good salesman of blind workmen that one foreman said that to hear Mr. Clunk talk you would almost believe that blindness was an asset in a factory worker. When Joseph F. Clunk became Chief of the Services for the Blind in the Federal Office of Vocational Rehabilitation, he not only had the opportunity to demonstrate personally his ability to place blind people in factories, but also had a chance to train many placement agents in the technique of finding locations for sightless workmen.

In addition to the movement to place blind people in regular factories doing certain kinds of repetitive work requiring little or no training, efforts were made to place

blind people in offices on clerical jobs usually performed by seeing people. The Dictaphone, Ediphone, and similar dictating machines have given many blind women, and some men, an opportunity to earn their daily bread. They have been trained for such clerical work, sometimes by associations and schools for the blind, sometimes in regular business colleges cooperating with agencies for the blind. Many of these blind men and women have been extremely successful. Montgomery Ward & Company has employed one or more blind women for twenty-five years or more, and hundreds of blind Dictaphone operators have found very satisfactory jobs not only in commercial concerns but in state and federal offices.

However, the placement of blind people in commercial and manufacturing concerns has not removed the necessity of the special workshop for the blind. Special workshops were established in the United States as far back as 1841. In the last decade of the nineteenth century and the first decade of the twentieth quite a wave of establishing employment institutions for the blind spread over the country. These institutions were combination workshops, vocational schools and boarding-houses. They were usually maintained by the state and at state expense. Board was provided either free or at a very low rate. Wages were ordinarily low. The institutions usually showed a substantial deficit at the end of the year, which was made up from state appropriations. In some instances those entering the institutions came with the understanding that they would remain for only two or three years, while they were learning their trades. But when the training period was over, their home connection had often been broken and there was no place

for them to go except to the county poor farms. Often they were permitted to remain in the institution for many years, so that it became difficult eventually to say whether the institution was a training school, a working home, or just a refuge for aged blind people.

During the first decade of the twentieth century questions began to be raised as to the wisdom of having a boardinghouse feature connected with the special employment establishments for the blind. In certain places like Perkins Institution, day workshops had been conducted for half a century but for the most part the boardinghouse feature was an integral part of the plan. Men like Charles W. Holmes, Eben P. Morford and others began urging the establishment, on at least a trial basis, of special day workshops where blind people could live in their own homes, or board in private families, and come to work in the special shop for the blind just as their seeing friends might go to work each day in a regular industrial establishment. The objectionable characteristics of the boardinghouse feature became so conspicuous that such institutions have ceased to be established in this country. Some institutions have retained the boardinghouse for a few of their older employees, or as a rehabilitation center where newly blinded men and women can be helped with their adjustment to the lack of sight. The best workshop managers scrutinize their boardinghouse departments with the greatest of care, to see that they do not become permanent residences if it is possible to make other arrangements.

In addition to the blind who are working in factories with the seeing and in special workshops, there are thousands of blind people—no one knows how many—who have found jobs for themselves in regular factories, or

who have set up independent business establishments. Probably blind people have operated small stores and other business ventures for centuries. Certainly during the present century hundreds of blind men, and some blind women, have set up small shops of one kind or another. Many of them employ seeing people to do much of the work, the blind men supplying the capital and business management. One elderly blind man who had been very successful in business once said to the author, "Sight is the cheapest thing in the world, it's brains that cost money." If the blind man has the brains and a little money, and the right kind of special abilities, he may find plenty of precedents for operating banks, loan agencies, grocery stores, taverns, book stores, music stores, phonograph record stores, newspapers, yacht building yards, trucking businesses, restaurants, hotels, etc.

However, it is the special workshop which forms the most characteristic opportunity for the average blind man or woman to earn his living. These workshops are usually organized as corporations not for profit. In a few instances, workshops have been set up as profit ventures by persons interested in the blind, the management hoping to employ a majority of seeing workmen. These men have worked on the theory that they could make sufficient profit from the product of seeing labor to offset any possible loss on their blind employees. These factories have seldom, if ever, been a success. Sometimes they have fallen into ill repute by employing a minimum of blind people though making an appeal to the public for patronage on the grounds that they were employing the blind.

The special workshop operating frankly not for profit

usually selects its employees from among those who for some reason cannot be satisfactorily placed in industry. Either there is no factory in the community which can or is willing to absorb this labor or, which is quite as often the case, the special workshop employs blind people whose lack of sight has reduced their productive ability to such an extent that they cannot carry their own weight in competition with the sighted. Or it may be that they have never been able to sufficiently adjust themselves to the loss of sight to enable them to get about with enough independence to work in a regular factory.

A special workshop has many policy questions to decide. There is no accepted principle which governs the management of all. Some workshops try to select workmen with a high degree of productivity but who, for personal reasons or for some other reasons, cannot be employed in regular concerns. The managements of such establishments try to operate without a deficit, even though they pay good wages. They very rarely succeed in keeping out of the red, however, and therefore they must depend upon a generous public to make up the deficit.

Blindness varies greatly in its effect upon the capacity of blind people to work. For this reason it is usually good policy to place the workmen on a piece rate basis. When this is done, the piece rate is usually high enough to enable a workman of average ability to earn wages equal to those that are prescribed by the labor union in the locality, and sometimes the rate is higher than that paid seeing people for their output in corresponding industrial concerns. Therefore, many of these blind people earn good wages but some, even at a high piece rate, are able to earn only a few dollars a week. The question then

arises, does the man produce a sufficient amount to justify retaining him in the shop where he takes the place of a more productive worker? If he is kept and does not earn enough to meet his living expenses, what shall the shop do about it? Usually some plan is evolved by which the amount of earned wages is augmented by an amount sufficient to enable the worker to live decently. Usually the blind relief authorities operating under the Federal Social Security Act cooperate in a case of this kind. But the workshop frequently has to raise money from private sources to make up this augmentation fund.

The question always arises, how to augment wages and at the same time encourage the workman not only to put forth his best efforts but to try to improve his skill. The workshop management usually meets this situation by handling the supplementary pay of the blind worker in such a way that the more he produces, the more take-home pay he has. For example, if it is decided that a blind man must have $25 a week on which to live, but is able to earn only $10, he is paid $15 augmentation pay. If by increasing his efficiency and putting forth more effort, he is able to produce enough so that his real earnings are $11, his augmentation is increased by 50 cents. He then has an income of $26.50. If he earns still another dollar, his pay is augmented by another 50 cents and his total income is $28. The management, however, usually decides upon a certain top weekly income above which the workshop will not participate with augumentation money.

The most serious problem confronting the workshop manager is to find a suitable product to manufacture. Workshops are influenced very much by tradition. Those who established the workshops for the blind in this coun-

try during the third and fourth quarters of the nineteenth century, discovered that the manufacture of brooms and the cane-seating of chairs offered fair opportunities for blind people to earn a living. Not too high a degree of skill was required, and it was not too difficult to find a market in the community for the products. During the twentieth century an effort has been made to get away from brooms and chair caning, if possible. Broom making seems to be a declining business, and cane-seated chairs are becoming obsolete. Still, today more blind people work at the manufacture of brooms in special workshops than at any other trade.

Experiments have been conducted with making coco-mats, pillowcases and doormats constructed of new rubber blocks and wire, or made from wornout automobile tires cut into small pieces and strung on wires. Experiments have also been made with rag-rug weaving, weaving of linen for table scarves, weaving of cloth from homespun wool, brush making, basket making and mop making. Basket making never became very popular, first because of the skill it required, and second, because of the competition with cheap foreign labor. At best, few blind people were able to earn reasonable wages. Rag-rug weaving lacked a sufficiently large market, and again, competition left little margin for the blind workman of average ability. Limited markets also kept coco-mat manufacture and other mat business from expanding sufficiently to employ many blind people.

Perhaps the greatest problem facing the special workshop manager is that of disposing of his product. In normal times most workshops for the blind have difficulty in selling enough of their output to keep the blind people who want work fully occupied. During

recent years, the managers have given more attention to their sales departments. They have found that with a competent sales force travelling about calling on customers, as does the average factory salesman, the market could be expanded substantially.

Many workshops have tried selling brooms and other commodities direct to the consumer, from door to door, with a kind of Fuller Brush procedure. Some department stores have been induced to put in a special counter for commodities made by the blind, giving the entire proceeds to the local agencies for the blind. There have been cases when commodities made by the blind were sold at church bazaars and at counters in summer and winter resort hotels.

Where the homework done by the blind could be sufficiently standardized, products of blind labor have sometimes been sold to jobbers. Usually, however, this procedure has showed a substantial deficit, even under favorable conditions. Perhaps the most successful effort in this connection has been the selling to jobbers and retail stores of handwoven neckties manufactured by a workshop for the blind in Seattle, Washingon.

In some instances substantial quantities of brooms have been sold to railroads and steamship companies in satisfactory quantities and at prices which left room for fair wages to blind people without causing much of a deficit on the shop's books.

One of the largest outlets, though usually leaving little margin for wages and management, has been the sale of brooms and mops to federal and state governments. In this kind of business, however, very severe competition has had to be met. In the mop business, for instance, where there were only a few manufacturers, the bulk of

the mops offered the government were made by workshops for the blind, who found that other workshops for the blind were their most severe competitors. In fact, they were all actually selling at a loss, to the Federal Government especially, even though the wages paid blind people were small and only sufficient profit was being sought to meet the cost of operation.

To relieve this situation it was decided to ask the American Foundation for the Blind to get a law enacted by Congress which would require the federal purchasing departments to buy from workshops for the blind brooms, mops and other suitable commodities which could be made by the blind. Congresswoman Mrs. Caroline O'Day and Senator Robert F. Wagner, both of New York, were interested in sponsoring such a bill. The commodities made by the blind were to be bought by the Federal Government at a fair market price, to be determined by a committee appointed by the President and containing representatives of the federal departments doing the most purchasing, such as the Army, Navy, Post Office, etc. In addition to the department representatives, the committee was to contain a representative of the general public familiar with the employment of the blind.

The bill was introduced, and in order that the reader may understand some of the difficulties of getting such a worthy measure through Congress, I am going into some detail regarding the efforts to obtain its passage.

The bill was introduced into the House and Senate almost simultaneously. It passed the Senate with little difficulty, but in the House a peculiar set of obstacles was encountered.

The Committee on Executive Department Expenditures was quite inactive. Few bills were referred to it.

The chairman was not in good health and the committee seldom met. Sometimes the committee meetings were as infrequent as two or three times a year. Such committees meet only upon call of the chair. It happened that the committee had had before it a bill which the chairman did not like. It was sponsored by certain women's clubs, and required the Army to put its superannuated horses and mules out to pasture for life, instead of killing them as had been common practice. The chairman felt that this was sentimental, and would have none of it. Now a bill at that time had to pass both the House and the Senate in the same session. If it passed the Senate and was not acted upon by the House during a single session, it died and had to be reintroduced in both houses at the next session.

Minor bills of this kind seldom meet with much opposition. What its friends mostly have to contend with is inertia due to lack of interest on the part of those operating the cumbersome machine known as the United States Congress. This bill which meant so much to workshops for the blind and which would bring to them millions of dollars in business, lay neglected in the files of the committee. The chairman would not say why he would not call a meeting, but everyone knew that it was the superannuated horse bill which was the fly in the ointment. If the committee met, the pressure from women's clubs would make it necessary for the committee to act on that bill. So long as it did not meet there was little that the kind-hearted ladies could do about it. While the chairman did not like the old horse bill, he did not care to incur the ire of some of his feminine constituents by having the bill reported unfavorably. Finally, however,

sufficient pressure was mustered to get both bills reported out with a recommendation for passage.

Time was running out, however. Hundreds of bills were on the House calender awaiting action. It takes considerable time to get a bill acted upon by the House. Sometimes it can be disposed of in two minutes, sometimes it requires two days of discussion. In order to expedite action, the House has set up a unanimous consent calendar. Bills placed upon this calendar come up for action twice a month. However, if any bill on this calendar comes up for action and one vote is cast against it, it must go over until the next unanimous consent day. If, the second time it comes up, two votes are cast against it, it is killed.

The Wagner-O'Day bill was placed on the unanimous consent calendar and came up for action within two or three weeks of the end of the session. Congressman Hamilton Fish, who usually favored bills benefiting the blind, for some reason did not like this bill—probably because it was sponsored by two New Deal Democrats from his own state. Therefore, when it came up he shouted from the back of the room something about the New Deal not being satisfied with regimenting everybody else "and now it's trying to regiment the blind." Illogical as the argument was, it constituted a vote against the bill.

There was still a chance to bring it up at the next unanimous consent day. There was to be one more during the session. The author tried to discuss the matter with Mr. Fish but he was too busy. Mrs. O'Day was ill and unable to push the bill herself. Finally the calendar committee met and, owing to the pressure of bills, decided that no bill could come up on the last consent calen-

dar of the session if it had ever been rejected on a former day. This seemed to sink the measure.

The author, who was responsible for presenting to the members of Congress the arguments for the bill went to Speaker Bankhead and asked for his intervention. Bankhead, knowing that Helen Keller who was born in his native state of Alabama was very anxious to see the bill passed, said that he would help out and suggested a procedure seldom resorted to in Congress. He proposed that the congressman who had been delegated by Mrs. O'Day because of her illness to look after her bills, move on the last day of the session that the rules be suspended and that this bill be taken up. It would require a two-thirds vote to suspend the rule, and when voted upon the bill must pass unanimously.

This congressman, being rather new in Congress, knew very little about the bill, knew less about this special procedure, and was very obviously nervous about the whole matter. The author, who had set his heart on getting the bill passed, was still more nervous. He went to the then Democratic floor leader, Sam Rayburn, and asked his counsel. Rayburn assured him that there was no reason to worry if the Speaker had promised to get the bill through.

The author had found from bitter experience that congressmen under pressure of business too often forget their promises at the last minute, and if Bankhead should forget, there was nothing that could be done about it but to start the whole long-drawn-out procedure over again next session.

The House, which usually meets at noon, met around nine o'clock that day, planning to adjourn at noon. Bankhead had promised the congressman who was looking

after Mrs. O'Day's bills that he would give him a signal when he was to move consideration of the bill. Nine o'clock came, and we were in quite a tizzy; 9:30 came, and no signal from the Speaker; 10 o'clock, no signal; 10:30, no signal; 11 o'clock, no signal. The author went to Rayburn's office and begged him to send a note to Bankhead reminding him of this bill. He was brushed off with the assurance that if the Speaker promised to take care of the bill he would not forget, and it would do more harm than good to remind him of it. About 11:30 when the author, who was sitting in the balcony on the point of collapse, heard Mrs. O'Day's congressman ask for the floor he knew the long-awaited signal had been received. The congressman got recognition immediately and proceeded to make a speech in behalf of the bill. He knew so little about the measure that, on the strength of his speech, the author himself would have voted against it.

However, a blind congressman by the name of Matthew Dunn from McKee's Rock, Pennsylvania, got up and explained the merits of the bill. A vote was ordered by the Speaker. Several stalwart Republicans, not including Fish, began protesting in the rear of the room. It is doubtful that they knew what the bill was about, except that it was sponsored by two outstanding New Dealers. The shouts of these half dozen objectors made the author's heart sink still further. Passage must be unanimous. After a minute or so of uproar from the back of the room, the Speaker banged on his desk and proclaimed, "Hearing no objection, I declare the bill passed." The die had been cast. Nothing short of a presidential veto could then kill the bill. There was no danger of a

presidential veto, because Mrs. Caroline O'Day was a close friend of the Roosevelt family.

The Wagner-O'Day law was soon put into operation. A very capable committee was appointed. The representative of the public was Major M. C. Migel, known as a well-informed and enthusiastic friend of the blind. Admiral Peebles was at that time head of the procurement department upon which the burden of making the Wagner-O'Day law function properly must fall. The Navy had never been enthusiastic about this particular law, but the fact that a retired admiral was in charge of purchases probably helped to smooth out possible difficulties from that source in the inauguration of the measure.

The success of the Wagner-O'Day law, however, is largely traceable to Robert Le Fevre, assistant to the head of the procurement department, then a division of the U.S. Treasury Department. He took a great interest in the law and in what it would mean to blind people, and it was he who smoothed out the rough places in the operation of this very unusual federal law.

The Wagner-O'Day law authorized the selection of a nonprofit private agency to cooperate with the Federal Government in making the law work. The American Foundation for the Blind was first asked to take this responsibility; however, it preferred to have an independent specialized organization formed to take over this job. Therefore a nonprofit organization was formed under the laws of New York State, to be known as National Industries for the Blind, Inc. The board of trustees of this organization largely overlapped the board of trustees of the American Foundation for the Blind but also included several managers of workshops for the blind.

Probably the whole success of the operation of the law depended upon the man who was to head up the National Industries for the Blind. If he were unwise or lacking in resourcefulness it could still be a failure. Fortunately, there was available Chester C. Kleber, who had for several years supervised the WPA project which had manufactured so many thousands of Talking Book machines, and he was selected by the Board as general manager. He and Mr. Le Fevre soon became close friends, both fired with a zeal to make this strange law work.

About the time the Wagner-O'Day law went into effect, things were happening in Europe, and the United States began preparing for possible entrance into the second world war. This meant that the Federal Government was soon launched upon a campaign of purchasing brooms, mops and pillowcases, to an extent that workshops for the blind had never dreamed of, and all of this business could go to them if they wanted it, at the prices set by the Federal Government committee. The law specified that this committee could set a fair market price which the workshops for the blind could take or leave, as they chose. If they did not want to sell brooms, mops and pillowcases at the prices set, no one would be aggrieved and the orders would be put up for open bidding. The committee decided that " fair market price" did not necessarily mean the lowest price possible, because it might be that some concern might have a large stock of brooms or mops, or pillowcases, which it was dumping on the market. Therefore, from time to time the price-setting committee obtained bids from the public, and upon the basis of these bids and the conditions under which they were made, a fair market price was determined. This procedure protected the taxpayer against

exorbitant prices, but also protected the workshops against any dumping prices.

The workshops for the blind entered a period of unprecedented activity. Two or three shops which had formerly operated but three or four days a week were now running seven days a week, twenty-four hours a day. The manufacture of pillowcases had long been one of the small activities of workshops for the blind. It was an industry which blind women could work at, but it had always been thought about in terms of a few dozen items rather than several millions. Ordinary sewing machines had been used and no one had been stimulated to find out his maximum productivity possibilities because the shops had had difficulty in selling the pillowcases they made. Now they were confronted with orders for millions of pillowcases. Few shops for the blind knew what their costs would be in quantity production and wanted to try out orders for ten thousand or so. Mr. Kleber realized that ten thousand was only a drop in the bucket against a million pillowcase order. He finally prevailed upon Mr. Edward S. Molineaux, manager of a workshop for the blind in Brooklyn, to undertake to make half a million pillowcases. Molineaux's shop had never made any pillowcases before, but fortunately he had a deep interest in the blind and something of the spirit of a gambler. He took the order for half a million, without any idea of how he was going to deliver the goods, or even purchase the raw material. His organization was not too interested in tackling such a job, but he prevailed upon it to allow him to use the organization's credit and purchase raw material sufficient to go forward with the job. Probably no one but Molineaux and Kleber realized the financial chances that were being taken. Certainly the jobber who extended

the credit did not realize it until later. But it all worked out all right. The pillowcases were delivered on time, the creditors were paid. The blind workers got a lot of experience and the outlet was saved as a market for the product of hundreds of blind women workers.

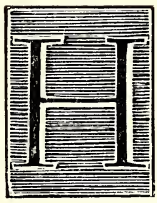
On the basis of this experience, other workshops for the blind were willing to accept large orders for pillowcases. Had Molineaux not been willing to take the gamble, or had he failed to deliver, blind women of this country would never have had the opportunity to earn the hundreds of thousands of dollars in wages which eventually came to them from the government's pillowcase business.

In this case and in others the workshops for the blind did well in meeting the government specifications, both as to quality of workmanship and time of delivery. Three of them did so well that they received the Army and Navy "E" for excellence of service. They proudly flew their "E" flags, a privilege that less than five per cent of the industrial concerns of the country enjoyed.

The bulk of orders from the Federal Government are for brooms, mops and pillowcases. National Industries for the Blind and the Federal Procurement Department are constantly studying government requirements in an effort to find a greater variety of commodities which workshops for the blind can supply. One unfamiliar with government purchasing may be surprised to learn the variety of commodities purchased. It includes an amazing number of various items, and many of them may be produced by the blind.

THE IMPORTANCE OF POWER TO MOVE ABOUT AT WILL

Dr. Irwin became blind at the age of five. He developed a high skill in getting about on his own during his years at the school for the blind and during his periods of attendance at the University of Washington and at Harvard University. He preserved this skill through his active working years and commuted alone from his home in New Jersey to the offices of the American Foundation for the Blind in New York City. However, his descriptions of the blind man's feelings of humiliation at being dependent on others for getting about, and of the terrors that modern traffic holds for the blind man, are expressions of his own deep feelings on the matter.



elen Keller once said that the heaviest burden on the blind is not blindness, but idleness. This has been quoted for a generation by advocates of remunerative employment for the blind. Idleness, however, has a much broader significance. Probably more important than earning one's own living is having the ability to move about at will.

It takes no great skill for a blind person to learn to get about his own home alone, but under modern traffic conditions in practically every community, it takes initiative and intestinal fortitude for a blind person to go for a walk beyond his own gate, or go to the neighborhood drugstore, grocer or barbershop unaccompanied. Those who lose their sight in later life, and who in number represent more than half of the blind population of the United States, are pretty likely to be homebound or at least dependent upon the kindness and generosity of relatives and friends for making even the shortest journeys away from home. The inability to go forth alone at will without accommodating oneself to the convenience of one's associates is perhaps the greatest affliction resulting from blindness. To have to ask a friend or a busy member of the family to go along on the simplest of errands is more humiliating than most seeing people realize and humiliation brings with it a deep resentment at one's lot.

The advent of the automobile has greatly added to the blind man's difficulties. Many a sightless person who at

one time travelled alone with ease has resigned himself to idleness in the face of the terrors of motor traffic.

Fortunate indeed is the blind man who is in a financial position to hire a guide. Allowance for guide service should always be made when the budget of a sightless person is calculated even when that budget must be met at public expense. Our government has recognized that blind people should not be compelled to depend upon the charity of their neighbors for food and clothing but still, in most instances, the blind man must depend upon the charity of his associates when he wishes to walk about his neighborhood in safety.

Some substitutes for a human guide have been found. When the first savage lost his sight in the wilderness, he probably learned to make good use of his club in getting about from place to place. The blind man and his staff have become proverbial since the days of Greek mythology and the Bible. The use of the cane, however, has received more attention during the past fifty years than heretofore. Home teachers have taught their pupils to use a cane and blind people have become expert in making use of their trusty stick, but for years few attempts were made to analyze this skill and teach any particular method for using it.

William Hanks Levy, in 1872, went into considerable detail in his book *Blindness and the Blind* in describing the use of the cane. Richard E. Hoover, when assigned the responsibility for training the men blinded in the second world war to travel about alone reduced the use of the cane to a scientific method which was taught to U.S. Army men who went through training courses at Valley Forge General Hospital. Probably most of these students later modified Hoover's method in one way or

another to suit their own needs, but to Hoover should go the credit for insisting that the art of traveling about with a cane should not be left to the chance resourcefulness of each individual. His method was not only used at Valley Forge and the U.S. Army's Dibble General Hospital but for a time regular courses were offered at the Maryland School for the Blind and elsewhere for rehabilitation workers. The method has been brought to a point of perfection in the instruction of blinded veterans at the Veterans Administration Hospital at Hines, Illinois.

Long before the second world war certain blind people desiring to be easily recognized as sightless in modern traffic began carrying a white cane. It is claimed that the white cane movement originated in France and soon found its way across the Channel to England. In the United States action was first taken in Peoria, Illinois, where the first city ordinance requiring regulation of the use of the white cane was passed in 1930. In quick succession other city ordinances were passed and soon laws were enacted in a majority of the states of the Union requiring automobile drivers to give the right of way to a blind person carrying a white stick. Today, thousands of autoists are quick to recognize the white cane as an indication that the carrier cannot use ordinary care in avoiding a collision.

Many blind people object to carrying the white cane as they feel that it makes their blindness too conspicuous in ordinary social intercourse. Most blind people use the cane as a means of learning the contour of the path immediately ahead of their feet. Tapping with the cane is not used by the blind man to warn other pedestrians of his approach in the hope that they will clear the way, but is used, rather, to get the echo from walls, buildings,

trees, bushes and the like. This echo tells him much about the character of his surroundings far beyond the reach of his cane. It greatly augments any information which the blind man may derive from so-called facial perception or obstacle sense.

The cane, however, is not the only tool whose use has been greatly developed during the twentieth century. For centuries blind people have traveled about with the faithful dog which guides them through many a complicated situation. Early in the nineteenth century Johann Wilhelm Klein of Vienna wrote a book on the education of the blind describing a method of training dog guides, but there seems to be no record indicating whether or not these trained guide dogs were actually ever put to use. During the first world war a problem presented by the thousands of soldiers who lost their sight in the German army was met by the German Government by developing a system of training guide dogs for its blinded veterans. Four large schools and many small ones were set up in Germany for the training of these dogs which were provided without cost for the blinded veterans.

In 1927 Mrs. Dorothy Harrison Eustis, an American woman, was conducting an experiment near Vevey, Switzerland in the training of dogs for various uses. Her kennels were known as Fortunate Fields. Here she trained dogs for the state police and the Red Cross, and liaison dogs for the Swiss Army. These dogs were trained for criminal trailing, and as prison and railroad yard guards. She was filled with a zeal to increase the dog's usefulness to man. When in that year she heard that schools in Germany were training dogs as guides for the blind, she visited Potsdam and other places and studied their methods. On November 5, 1927 an article by her entitled

"The Seeing Eye" was published in *The Saturday Evening Post*. This article described the use of the guide dogs for the blind in Germany. She drew her name from Proverbs 20:12 "The hearing ear, and the seeing eye, the Lord hath made even both of them." This article was read with much interest by many blind people in America and more than one envisioned the dog as his emancipator. Morris Frank, a young blind insurance salesman in Nashville, Tennessee immediately communicated with Mrs. Eustis to learn where he could obtain such a dog and expressed the ambition to organize a training school in the United States where such dogs might be educated and provided to blind people on this side of the water. Frank journeyed to Vevey, Switzerland, learned to use a dog at Fortunate Fields and returned to the United States a "free man." The author well remembers Morris Frank calling him on the phone when he arrived in New York on his way to Europe. He expressed a desire to call on the writer but was appalled by the terrors of New York traffic. However, arrangements were made for him to come to the American Foundation for the Blind in a taxi with an escort. Four months later Frank again called the author on the phone from the same hotel two miles away and made an appointment to come to the Foundation an hour later. Accompanied only by his dog, Frank traveled across the city on foot to the Foundation offices and after a chat of an hour or so returned alone with his dog to his hotel full of enthusiasm for the new day for the blind.

Willi H. Ebeling, a German-American, who had retired from business to concentrate upon his hobby of breeding shepherd dogs, also became interested in this use of his favorite animal. He joined forces with Mrs.

Eustis and Elliott S. "Jack" Humphrey, her chief trainer, and soon The Seeing Eye, a newly formed corporation not for profit, was operating a training school at Morristown, New Jersey. A Swiss by the name of William Debetaz was brought over from Fortunate Fields to act as head trainer. Since that time about 2000 blind people have been provided with Seeing Eye dogs. No dog is given by the Seeing Eye to a blind person except upon the payment of $150 which the blind person has to earn. It is felt that by making this requirement the blind master will have a greater appreciation of the value of his dog. Sometimes the payment of the $150 may be distributed over a period of several years and the applicant is not required to wait until the dog is entirely paid for before receiving it. These dogs which are perhaps the best trained dogs in the world require about three months of preliminary training plus a month's training with the master, all of which is carried on at Morristown.

Those of the Seeing Eye insist that their dogs are not trained, but educated, for a dog is taught to guard his master even to the extent of disregarding orders if by so doing his master is kept from possible injury. For example, a man and his dog might encounter a hole in the sidewalk. The dog might stop and the master order him to proceed forward. An educated guide dog will refuse to advance but will insist on going around the hole and letting his master know that carrying out the order to go forward would be dangerous.

Careful study is exercised in the selection of recipients of Seeing Eye dogs as not every blind person can use a dog guide. Some are too young, many too old. Some do not like dogs. According to the Seeing Eye people, less than five per cent of the blind can use a dog guide. Great

care is also exercised in the selection of trainers. It is said that out of ten apprentice trainers, about nine are usually rejected.

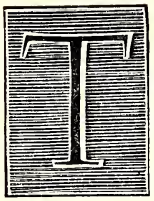
The Seeing Eye was the pioneer training school for guide dogs in the United States. In the years following other centers have been established in various parts of the country for the purpose of utilizing man's best friend in this new capacity. Some of these schools have given good service in their special localities, others have been discontinued. Probably the failure of many guide dog training schools can be attributed to incompetent trainers more than to any other cause.

THE FIGHT FOR SOCIAL SECURITY

Special local legislation providing relief to the needy blind in the form of direct financial assistance from public funds has a long history in the United States. The oldest provision of this type is found in a resolution passed in 1866 by the Board of Aldermen and Board of Councilmen of New York City, establishing a definite procedure for dealing with applications from blind persons for "donations" from city funds. The first state law for relief for the blind was passed in Ohio in 1898. This law was later declared unconstitutional, so that Illinois's so-called "blind pension" law of 1903 actually pioneered in establishing the principle of relief for the blind from public funds. By January, 1935 twenty-six states had passed similar legislation.

In 1935, with the passage of the Social Security Act, the Federal Government assumed the responsibility of helping the states to provide assistance to the needy blind. In the following pages Dr. Irwin gives his story of the passage of the Act—a fight for security for the blind in which he took a very active part.

Since Dr. Irwin's sudden death in 1951, additional legislative measures have been passed relative to financial aid to the blind. In 1952 an amendment to the Social Security Act raised the federal maximum on the amount to be paid to blind individuals to $55.00, out of which the Federal Government pays four-fifths of the first $25.00 and one-half of the balance within the maximum. Furthermore, in 1953 Nevada passed a law meeting the requirements for federal-state assistance to the blind. The program, therefore, is now in force in all the states of the Union.



HE WAGNER-LEWIS BILL (later known as the Social Security Act) was the foundation of the New Deal program of economic and social security. Unemployment insurance, old-age pensions, maternal and child welfare, and a program for crippled children were provided in the original bill, with the Federal Government matching state funds within certain limits. To these provisions the American Foundation for the Blind proposed the following additions:

1. Eligibility of blind persons at the age of fifty to the benefits of the old-age pensions to which sighted persons are eligible at sixty-five.
2. Inclusion of "children with seriously defective vision" among "crippled children" for whom "facilities for diagnosis and care, hospitalization, and after-care" are provided.
3. Provision of $1,500,000 of federal funds to supplement state funds for work for the blind, exclusive of education of the young blind and direct relief.

However, the amendment embodying most of these suggestions failed of inclusion in the final act.

As the bill passed the House of Representatives it contained no reference to the blind. However, the Senate inserted, by committee amendment, a special section, Title X, dealing with grants to states for aid to the blind. This Title X authorized an appropriation of $3,000,000

for the fiscal year 1936, and for each year thereafter, so much as might be necessary for assistance to the states through reimbursement of one-half of the state's expenditures for aid to the needy blind, always with the provision that the federal grant must not exceed $15.00 monthly on behalf of any one blind person. The money was to be paid to states whose plan for aid to the blind had been approved by the Social Security Board as complying with certain requirements similar to the plan for old-age assistance. The bill was reported to the Senate in this form.

Senator Robert F. Wagner, sponsor of the original bill, offered from the floor of the Senate, at the request of Helen Keller, a further amendment to provide that one-half of the proposed funds might be used to reimburse states for expenditures for "locating blind persons, diagnosing their eye conditions, and training and employment of the blind" and also providing that state blind relief laws should contain definitions of blindness and of need acceptable to the Social Security Board. This amendment was passed by the Senate.

Since, however, the bill had passed the House and the Senate in different forms, it was referred to a joint conference committee of House and Senate to have the differences removed by mutual agreement. This conference committee eliminated Senator Wagner's amendment, but accepted Title X as formulated by the Senate committee. The use of federal funds was limited to reimbursements for state programs of blind relief. In this form the bill was passed by both legislative bodies and was signed by the President on August 14, 1935.

It is to be noted that the Act does not provide a direct federal pension to blind individuals, nor does it directly

increase the amount which a state or county pays to a blind person. This amount is based strictly on need. In the operation of the plan a minimum subsistence budget for a blind individual is set up, the resources required to meet these needs are calculated and the payments of aid adjusted, where maximums or appropriations permit, to bring the income of the blind individual up to the amount of his budget requirements.

The principle of the "needs test" has been the subject of much adverse criticism. Many blind people and organizations of the blind have urged its abolition contending that since most blind people are indigent and since careful investigation is very expensive, it is believed that maintenance of machinery for the investigations will cost more than the amount saved by the discovery of persons who could get along without the grant.

In the light of some of this criticism it is interesting to note that the American Association of Workers for the Blind, Committee for Adequate Relief appointed in 1929 included in its report of 1931 the following passage: "Adequate relief from whatever source or sources obtained should be adjusted to the needs of the individuals, as determined by the best scientific and social judgment of the standards in the community in which the blind person lives, rather than give fixed and flat rate amounts."

At the time of the passage of the Act twenty-six states had programs of relief to the needy blind in effect but not one of these programs met the requirements of the Social Security Act. Some were rendered ineligible by the stringency of their residence requirements, some by the fact that the blind relief was administered by the counties without supervision of a state agency, some by the fact that the relief laws were not state-wide and man-

datory on the counties, some because there was no financial participation by the states. The prospect of receiving a fifty per cent reimbursement from the Federal Government prompted these and other states to hasten to make themselves eligible for federal aid, either by amending existing laws or by passing new legislation. All states with the exception of Nevada have now come under the Social Security Act. Missouri has joined the program, but in addition still pays a flat pension to certain of its blind. (*See chapter introductory remarks.*)

Even taking into consideration the lower cost of living at the time as compared with that of the present day, most grants in the states having relief programs in 1935 were far from adequate to meet the living needs of sightless people. Many states, therefore, in their new legislation and in anticipation of federal aid increased the maximum limit of payments substantially.

Some states, including New York, removed the top limit entirely leaving it to the administration to give as adequate relief as possible with the funds available. The states are responsible for determining the amount of the individual monthly grant based on an investigation of the needs of the blind person, and may pay more or less than the federal maximum. However, the Social Security Act has always included a limit on the amount of reimbursement to the states that the Federal Government will give with respect to any individual recipient of aid.

This has had the effect of suggesting to the states that such an allowance is adequate. For example, if the Federal Government reimburses a given fraction of any payment up to a maximum of $30.00 per month on account of any individual there is a tendency for the states to limit the amount of relief to $30.00, even though in certain com-

munities under certain conditions three times this amount is often inadequate. For this reason every time the Social Security Act has come up for any amendment, efforts have been made to increase the federal share of expenses. The first amendment passed in 1939 raised the amount of possible Federal contribution to $20.00 per month, still on a fifty-fifty matching basis. The amendment, however, provided that the Federal Government pays fifty per cent of the administrative cost.

As time went by the fifty per cent reimbursement was deemed insufficient for many states to carry on anything like a satisfactory relief program. It was thought that perhaps a plan could be worked out based on average income in the various states so that the less prosperous states would be reimbursed up to two-thirds of their expenditures while in the more prosperous states the reimbursement should not exceed fifty per cent. This plan, however, was never put into effect as representatives of the prosperous states contended that on a fifty per cent reimbursement basis they did not receive back in federal grants nearly as much as they paid over to the Federal Government in taxes.

Other ways were found to help the low income states. In 1946 the maximum federal share of the individual payments to needy blind persons was increased from $20.00 to $25.00 per month. This amendment also provided that the Federal Government, instead of matching state funds on a fifty-fifty basis, would pay two-thirds of the first $15.00 of the average monthly payment to blind individuals and one-half of the balance of all expenditures within the $45.00 total maximum. Carrying this principle further, an amendment of 1948 increased the maximum on individual payments to $50.00 per month, specifying that

three-fourths of the first $20.00 of the average monthly assistance payment and one-half of the balance within the $50.00 total maximum would be paid by the Federal Government. (*See chapter introductory remarks.*)

This has had the effect of easing the burden of the low income states, but it has also sometimes had the effect of keeping the grants down to an amount for which more than a fifty per cent reimbursement would be received.

Ever since the passage of the Social Security Act of 1935 Congress has been importuned to amend the law so as to extend the benefits of the old-age and survivors insurance plan to cover blind people under sixty-five years of age giving them the same benefits that they would receive were they of that age. Many other countries having social security programs somewhat resembling those in the United States have made some such provision for the blind, notably Canada and Great Britain.

Another criticism brought against the Social Security Act was that it did not permit sufficient flexibility of administration to encourage the industrial blind to become self-supporting. The original Title X of 1935 gave as its purpose "to furnish financial assistance to needy individuals who are blind." The 1939 amendment, however, specified that "the state agency shall, in determining need, take into consideration any other income of an individual claiming aid to the blind."

In the operation of the Act it was argued that blind people of low productivity had little or no incentive to work when opportunity was afforded. It was pointed out that many blind persons having lost their sight in adult life adjust themselves very slowly to working without the aid of sight. It was also pointed out that when a blind person earned less than the relief grant and when this

grant was reduced by the amount received in remuneration of his labor he got little besides physical exercise as a result of his efforts. The American Foundation for the Blind, the American Association of Workers for the Blind, and the National Federation of the Blind joined forces in bringing this weakness in the law to the attention of Congress. As a result the Social Security Act in 1950 was so amended as to permit states to disregard up to $50.00 per month of a blind man's earnings when calculating his resources. This amendment was permissive up to 1952 after which date it becomes mandatory upon states receiving federal reimbursement.

The Social Security Act has, since its inception, been criticized on the grounds that it did not permit state administrators of relief to take into account certain special expenses which blind people must incur as a direct result of their lack of sight. It was pointed out that blind people, unlike sighted people in the same economic level, must hire guides, pay for readers, disburse many more tips, resort to taxis instead of buses, pay more for cleaning clothes in order to be presentable, etc.

This criticism has been met in many states by administrative regulations, though it must be admitted that in far too many communities social workers determining the amount of aid to be given have been following too slavishly the budget prepared for the far more numerous recipients of old-age relief who enjoy a fair amount of sight and therefore do not have many of the expenses which a blind person must meet.

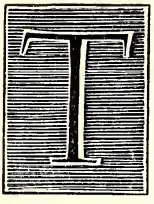
In 1949 a passage in an amendment to the Social Security Act required that state administrators take into account in an individual's needs the special expenses arising from blindness. However, this particular clause was elimi-

nated from the amendment when it was finally passed by Congress in 1950.

It has also been contended that since much blindness could have been prevented had society taken the precautions which a civilized community should have exercised, the state in common justice should give all blind people a monetary allowance or pension which would be in the nature of a compensation or handicap allowance. No legal action has been taken on this matter.

THE
AMERICAN FOUNDATION
FOR THE BLIND

Dr. Irwin was Director of Research and Education when the Foundation opened its first modest offices in 1923. In 1929 he became Executive Director of the fast-growing agency. For the years of his directorship his name was practically synonymous with that of the American Foundation for the Blind.



HE AMERICAN FOUNDATION FOR THE BLIND when promoted in 1921 did not represent a new idea. Mary Fowler, as far back as 1902, had dreamed of a national agency for the blind. Certainly Charles F. F. Campbell's fertile imagination envisioned a national organization for the blind as far back as 1906 or perhaps earlier. His first step in the consummation of such a dream was the establishment of the *Outlook for the Blind* in 1907. But the country was not ready for it yet. Only a few of the more foresighted among workers for the blind felt the need of a national agency.

Ten years later, when "Evergreen," the Red Cross Institute for the Blind at Baltimore, Maryland was set up in 1918 for the training of the blinded soldiers and sailors of the first world war, its sponsors became interested in converting it eventually into a national organization for all the blind. Foremost among the promoters of this idea were Lieutenant-Colonel James Bordley, Director of the institute, L. W. Wallace, his successor as director, and Charles F. F. Campbell, who served on the staff as assistant director. All of these men were outspoken in their efforts to show the need for a national agency such as they had in mind, and in their criticism of existing conditions.

On the other hand, the then leading schools for the blind—Perkins, Overbrook, and New York—had become in the minds of the general public and also, perhaps,

in the minds of their own managers, sources of information and inspiration on every phase of work for the blind. However, in the 1919 *Annual Report* of Perkins Institution, its cautious but imaginative Director, Edward E. Allen, wrote in part:

"Some permanent institute or agency wisely run under national auspices in trying out new, old or even abandoned fields, and for fitting the civilian blind to enter them; also for persuading employers to hire them without prejudice—something of this sort, the schools for the young blind which are mainly prevocational in aim, would welcome as a much needed adjunct to their work."

Other influential voices were heard in favor of the idea. In 1920, pursuant to an address by Mr. L. W. Wallace, Director of the Red Cross Institute for the Blind, the American Association of Instructors of the Blind adopted the following resolution:

"That this Association would welcome the cooperation of some wisely organized agency for assisting and improving the vocational education and the employment of the blind of this country, such as has been outlined at this convention."

At about this time the author, who was then supervisor of classes for the blind in the public schools of Ohio, visited Boston, New York, Philadelphia and Baltimore in an effort to find someone who would be interested in setting up a research organization. In Baltimore he had a conference with his friend H. Randolph Latimer of the Pennsylvania Association for the Blind, then president of the American Association of Workers for the Blind. After some discussion of the subject, Mr. Latimer undertook to launch a movement to establish an organization much broader than a research agency,

somewhat in line with what had been proposed by Mr. Wallace at the American Association of Instructors of the Blind convention. He envisioned an agency which would not only carry on research work but would also further work for the blind of all kinds through public education, supplying technical counsel and encouragement wherever it was felt that such activities would bear fruit in the form of broader and more efficient activities in behalf of the blind. In order to win the support of workers for the blind in general, he proposed to build the program for the 1921 convention of the American Association of Workers for the Blind around the idea of a national agency for the blind.

Prior to the conference he arranged for a gathering of a small number of workers for the blind at the New York Institute for the Education of the Blind to discuss the subject. This was attended by Mr. Edward M. Van Cleve, Principal of the institute and the host, O. H. Burritt, Edward E. Allen, Charles F. F. Campbell and several other leaders in work for the blind, including the author. After a day's discussion most of the misunderstandings and misgivings regarding the establishment and purpose of such a national agency seemed to have been dissipated.

The convention program aroused much enthusiasm for the project and a committee was appointed with instructions to take the legal steps necessary for organizing what became the American Foundation for the Blind. Practically no money was available for this organization but it started with at least lip-service backing from everybody in work for the blind in the United States who had any influence.

The group naturally turned to Major M. C. Migel, the

well-known philanthropist, who had financed the work of the Uniform Type Committee and who, it was believed, would be interested in this undertaking. Major Migel was in Europe at the time of the meeting of the board of trustees of the infant organization. Mr. Olin H. Burritt was elected president to hold office until Major Migel should return to the United States when it was hoped that he would take over the duties of president. To round out the temporary official set-up, Mr. Latimer consented to act as temporary part-time secretary-general pending the employment of a full-time executive.

Major Migel upon his return was unanimously elected president to take office in May 1922. He was very much interested in the project and promptly underwrote its expenses for three years, at the rate of $10,000 a year. What was more important, he undertook also to induce his friends to join with him in meeting the minimum financial needs of the Foundation for a three year period. Upwards of $30,000 a year was so raised.

The Foundation offices were opened in New York, February 1, 1923. The executive organization was completed with the assumption of duty as director-general by Dr. Joseph C. Nate and the appointment of the author as Director of Research and Education and of Charles B. Hayes as Director of Information and Publicity and Editor of the *Outlook for the Blind*. Under the readjustment in 1929 of the executive management the author was made executive director and Mr. Hayes, retaining the editorship of the *Outlook*, was made field director. Major Migel served as president until November 30, 1945 when he became Chairman of the Board and William Ziegler, Jr. took over his duties as president.

Work was begun immediately to raise money to carry

on services nationwide in scope. This was difficult in the beginning, but gradually friends were found who were willing to contribute small amounts annually, both toward the current operation and toward the building up of an endowment. The board set a goal of an endowment of two million dollars and an annual income for operation purposes of $100,000. At the time money could be invested at around five per cent. Changes in the value of money and the exceptional growth of the Foundation throughout the years have caused a revision of these early plans and estimated figures. The annual budget of the Foundation is now over $1,000,000 and the endowment fund has long since passed the $2,000,000 mark.

Among the enthusiastic supporters of the Foundation from its beginning must be mentioned Helen Keller and her teacher Anne Sullivan Macy. Helen Keller in the early years conducted a series of mass meetings across the country to build up what was to be called the Helen Keller Endowment Fund. These meetings made thousands upon thousands of friends for the new organization, friends who have proved faithful supporters of its program throughout the years. Later Miss Keller joined the Foundation's staff and serves as Counselor of National and International Affairs. Her assistance in promoting legislation for the blind through appearances before federal and state legislative bodies has been invaluable, and she has always been ready to serve on projects where her wide influence would secure the success of an undertaking.

The first twelve years of the life of the Foundation was spent in rented quarters. However, as the agency grew and new projects were undertaken the problem of space became more and more acute. Major Migel, as so

often before, recognized this emergency and generously donated a new three-story building at 15 West 16th Street to be used as headquarters, possession of which was taken on December 5, 1935. Since that time the need for space has made necessary the construction of another building and the acquisition of more space adjacent to the central building.

The American Foundation for the Blind was established by action of agencies for the blind and friends of the blind to fill the need for a national organization to serve the interests of the blind and to coordinate the work done by local agencies throughout the country. It works in close cooperation with all governmental agencies, both federal and state. In its discharge of duties it scrupulously makes referrals to state agencies and local voluntary agencies for those services that logically fall within the scope of such agencies.

Among the activities of the Foundation can be mentioned research, consultation and field service, special services to blind individuals, publication of professional literature, and a special library on work with the blind. In 1948, on its 25th anniversary as a working agency, the Foundation reported in part on its work through those years:

> Directly or indirectly the American Foundation for the Blind has promoted the establishment of state agencies for the blind in more than one-half of the states of the Union.
>
> It has worked to improve the education of the blind through:
>
> Surveys of schools for the blind;

The operation of an experimental and demonstration school jointly with Perkins Institution;

The conduct of a dramatics training project for blind children;

The development of educational Talking Book records for blind children;

Cooperation in the development of measuring scales of intelligence and educational achievement tests;

The publication of a professional magazine and books for teachers of blind children;

Higher education scholarship for promising young blind students.

In other areas the Foundation has:

Worked to provide broader opportunities for the employment of the blind through special studies of occupations and professions in which they may excel;

Obtained cooperation of the Federal Government in providing employment to thousands without sight, manufacturing commodities for the government, in which they have earned millions of dollars in wages;

Cooperated with agencies for the blind in obtaining a federal-state relief system for the blind which extends monetary assistance to scores of thousands of needy blind people;

Aided in the development of improved methods of braille printing and promoted the adoption of a uniform braille code for the English-speaking world;

Prevailed upon the Federal Government to inaugurate a system of library service for the blind, and developed the Talking Book for those who because of age or other reasons cannot read braille;

Developed special appliances to minimize the handicap of blindness, such as an improved braille typewriter, high quality Talking Book machines, low cost recording machines, scales for weighing, a thermometer which can be read by touch, measuring devices which open various fields of employment for the blind, etc.;

Obtained the cooperation of the railroads and buses, enabling blind people to travel with a guide upon the payment of only one fare;

Provided special services to the deaf-blind and assisted local agencies for the blind and the deaf to give comprehensive care to this doubly-handicapped group;

Maintained summer school courses and institutes for in-service training for workers with the adult blind;

Conducted a demonstration summer vacation home for blind women where hundreds of sightless women find recreation and diversion;

Given thousands of radios to blind men and women who could not afford to buy them;

Made available to the blind, at cost or less, special watches, braille typewriters, standard typewriters, and other special equipment;

Conducted during and since World War II a special consultation service to blinded service men and veterans, giving each one a braille watch and other special equipment not then available from the government;

Arranged for national and international conferences with special reference to the blind, such as a world conference on work for the blind, a national conference on the preschool blind child, conferences of workshop managers, etc.;

Conducted a special reference and lending library of ink-print books on subjects of interest to workers for the blind.

When quoting these excerpts from the twenty-five year report the author is conscious of a deep sense of gratitude to the many friends of the Foundation, especially those whose generosity and active service as officers and board members helped the struggling young agency over the first difficult years. There were many of these friends, and they cannot all be listed. A special tribute, however, should be paid to Miss Prudence Sherwin of Cleveland, who served as vice-president for many years, to Herbert H. White, who as treasurer guided the Foundation finances in the early years, and to William Ziegler, Jr. who even before his assumption of the presidency of the Foundation had proved himself a loyal friend. Their interest and willingness to serve should be an inspiration to the present members of the Board who now work with a new executive director. The new executive is Mr. M. Robert Barnett, a young and energetic man who had made a name for himself as head of the Florida Council for the Blind and who succeeded the author in 1949.

As a finish, it is above all pertinent to say that as one looks back over the years' effort to build the organization, one wonders how the Foundation could have attained its present stature without the imagination and drive supplied by Major M. C. Migel and without the active backing of Helen Keller who put behind it all of the magic of her name.

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